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ABSTRACT

As part of a statewide effort to contribute necessary information for the improvement of planning, administration, and delivery of continuing education services, the central region studies were an attempt to discover more about adult learning interests, the needs for continuing education services, and the present delivery system in an 11-county region of central New York. Three separate research efforts were conducted: (1) A demographic profile and analysis of the 11-county region including description of the population of each county with regard to age, sex, income, level of education, occupation, and labor force status; (2) a survey of adults in the region about their continuing education needs and interests (half-hour interviews by trained volunteers with 1,502 randomly selected adults from 64 communities--farm workers, service workers, blue collar workers, white collar workers, unemployed, and homemakers); and (3) a survey of providers of educational services in the region (questionnaire surveys of four categories of providers: degree granting 2- and 4-year colleges and universities; public schools, vocational, private, and proprietary institutions; social, cultural, government, religious, and professional organizations and agencies; and employers. It was found that a large majority of adults in the region wish to continue their education beyond the years of formal schooling, and many institutions, organizations, and agencies are attempting to provide appropriate continuing education services for them. In general, findings showed that the activities offered by the providers of learning opportunities are in the same learning areas cited as preferences by adults. To provide data to improve services and increase adult participation, specific findings from the study are presented in the report under the following categories: Adult interests and participation, learning opportunities and adult needs, recommendations for a more responsive system of continuing education, and toward a regional continuing education information management system. (JT)

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Continuing Education: Bridging the Information Gap

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TABLE OF CONTENTS

List of Tables vi

Acknowledgements xiii

Introduction 1

Chapter

I Continuing Education - A Perspective on the Problem. 3

  Objectives of the Study 5

II Research Methods. 7

  The Demographic Profile of the Central Region 7

  The Assessment of Continuing Education Needs of Adults. 8

    The Sample of Adults 9

  The Inventory of Central Region Learning Opportunities. 13

    Higher Education Survey. 14

    Other Educational Institutions 15

    Survey of Organizations and Agencies 16

    Survey of Employer - Based Continuing Education. 18

    Classification of Information on Learning Resources and Learning Needs 18

III Characteristics of the Central Region. 20

IV Adult Continuing Education Needs and Interest in the Central Region 27

    Learning Interests of Central Region Adults. 27

    Adults' Preferred Learning Conditions. 30

    Reasons for Continuing Education Study 35

    Barriers to Participation in Continuing Education. 36

    Continuing Education Information 38

    Continuing Education Participants and Non-Participants . . .40

V Continuing Education Learning Needs:

Further Analysis of Data. .50

Learning Interests and Continuing Education Participation . .50

Learning Interests and Preferred Learning Sites 50

Learning Interests and Preferred Costs. 51

Learning Interests and Educational Background 57

Learning Interests and Occupation 60

Learning Interests of Men and Women 62

Learning Interests for Adults of Different Ages and Income Levels 62

Learning Interests and Learning Characteristics of Rural and Urban Adults. .63

Barriers to Learning: Other Relationships. 74

VI Learning Opportunities in the Central Region. 86

Learning Activities for Adults. 95

Educational Institutions. 106

Proprietary Institutions. 110

Social, Cultural, Professional Organizations and Agencies. 111

Employer-based Learning Resources 115

VII Conclusions and Recommendations. 125

Adult Interests and Participation. 125

Learning Opportunities and Adult Needs 128

Recommendations for a More Responsive System of Continuing Education 130

A Coordinated Continuing Education System. 130

Interinstitutional Cooperation and Coordination. . . . 131

Improvement in Information and Counseling Services for Adults 132

Decentralization of Learning Opportunities 133

Alleviating Financial Barriers to Learning 134

Development of Appropriate Curricula to Meet Adult Needs 134

Toward a Regional Continuing Education Information Management System. 135

Functions of a Management System 138

Data Gathering 138

Data Management. 140

Data Synthesis 142

Data Dissemination 143

Application. 144

Feedback 145

Governance 145

Next Steps 146

References 147

Appendix A - Needs Assessment Interview Instrument 148

Appendix B - Learning Resources Survey Instruments 156

Institutions of Higher Education 157

Other Educational Institutions 167

Organizations and Agencies 172

Business and Industrial Firms. 179

Appendix C - Classification of Subject Areas in Continuing Education 184

Index. 212

LIST OF TABLES

Table Page

1 Comparison of Selected Characteristics for Central Region Population 11

2 Age Composition of Sample by Total Population of City or Township of Residence 12

3 Educational Background of Sample by Total Population of City or Township of Residence. 12

4 Institutions of Higher Education 14

5 Percent Employed Persons 14 years old and over in Major Occupation Groups by County, 1970 26

6 Total of Expressed Learning Interests of Adults. 28

7 Adults' Priority Learning Interests. 29

8 Ten Subject Areas Most Frequently Studied by Continuing Education Participants 30

9 Adults' Preferred Learning Settings. 31

10 Adults' Preferred Mode of Instruction. 32

11 Hours Per Week Which an Adult Would Spend on a Learning Activity 33

12 Total Length of Time Which an Adult Would Be Willing to Spend on a Learning Activity 33

13 Adults' Willingness to Pay for Learning Activities 34

14 Adults' Preference for Studying for Credit 34

15 Type of Credit Desired by Adults 35

16 Adults' Expressed Reasons for Continuing Education Study in Area of Learning Priority. 35

17 Perceived Barriers to Participation for Self and Other Adults 37

18 Summary of Perceived Barriers to Participation Ranked for Self and Other Adults. 37

Table Page

19 Adults' Knowledge of Continuing Education Activities in Own Community 38

20 Information Methods Used by Adults Who Know About Courses in Own Area 38

21 Responses of Adults to Question, "Would You Like to Be Kept Better Informed?". 39

22 Adults' Opinion on Best Methods Providers Coule Use To Inform Clientele About Continuing Education. 39

23 Adults' Opinions on Information Source They Would Use to Seek Continuing Education Information. 40

24 Adult Participation in Continuing Education in the Central Region 41

25 Time of Last Continuing Education Enrollment for Adult Participants 42

26 Relationship of Continuing Education Participation to Educational Attainment of Adults. 43

27 Comparison of Participants and Non-Participants by Occupational Group. 44

28 Comparison of Participants and Non-Participants by Income Group. 45

29 Comparison of Participants and Non-Participants by Age 46

30 Comparison of Participants and Non-Participants by Sex 46

31 Learning Interests of Continuing Education Participants and Non-Participants. 48

32 Differences Between Participants and Non-Participants for the Top 15 Learning Interest Categories 49

33 Comparison of Subject Area of Past Participation with Participants' Priority Learning Interest. 52

Table Page

34 Comparison of the Top 15 Learning Interests with Learning Site Preferred by Adults 54

35 Comparison of Preferred Costs for Learning Opportunities with Adults' Priority Learning Interest 55

36 Comparison of Preferred Costs for Learning Activities with Adults' Reasons for Study. 56

37 Comparison of Adults' Educational Backgrounds with the Top 15 Learning Categories. 58

38 Rank Order of Top 15 Learning Interests Selected by Adults of Different Educational Backgrounds 59

39 Learning Interests of Adults in Various Occupational Groups. . 61

40 Ten Priority Learning Interests in Rank Order by Preference for Men and Women. 65

41 Ten Priority Learning Interests (in Rank Order of Preference)of Adults of Different Age Groups. 66

42 Ten Priority Learning Interests (in Rank Order of Preference) of Adults of Different Income Levels. 67

43 Ten Priority Learning Interest in Rank Order of Preference of Adults Living in Areas of Different Total Populations. . 68

44 Time of Most Recent Participation in Continuing Education Activities by Adults Living in Areas of Different Total Populations 69

45 Adults' Participation in Continuing Education Activities . . . 69

46 Hours Per Week Which Adults Living in Areas of Different Total Populations Would Spend on Contuing Education Activities. 70

47 Expressed Preferences of Adults Living in Areas of Different Total Populations for Continuing Education Learning Settings. 71

Table Page

48 Perceived Barriers to Learning for Adults Living in Areas of Different Total Populations. 72

49 Summary of Perceived Barriers to Learning for Adults Living in Areas of Different Total Populations. 73

50 Perceived Barriers to Learning for Men and Women 75

51 Summary of Perceived Barriers to Learning for Men and Women 75

52 Perceived Barriers to Learning for Participants and Non-Participants. 76

53 Perceived Barriers to Learning for Adults in Different Age Groups. 78

54 Summary of Perceived Barriers to Learning for Adults in Different Age Groups 78

55 Perceived Barriers to Learning for Different Occupational Groups 79

56 Summary of Perceived Barriers to Learning for Different Occupational Groups 80

57 Perceived Barriers to Learning for Adults with Different Educational Backgrounds 82

58 Summary of Perceived Barriers to Learning for Adults with Different Educational Backgrounds. 83

59 Perceived Barriers to Learning by Income Level. 84

60 Summary of Perceived Barriers to Learning by Income Level. . . 85

61 Organizations and Agencies Surveyed. 86

62 Formal Learning Opportunities Available to Adults. 88

63 Total Continuing Education Enrollment for 1973-1974 Academic Year by Type of Provider (Except Employers 90

64 Plans for Increase in Continuing Education by Type of Provider (Except Employers). 91

Table Page

65 Sources Utilized by Educational Institutions to Inform Adults About Continuing Education. 93

66 Providers' Opinion of Most Effective Methods of Information Dissemination 93

67 Priority Information Needs of Continuing Education Providers . 94

68 Learning Activities Offered by Providers in Spring 1974. . . . 96

69 Credit Status of Learning Activities 97

80 Cost Schedules for Continuing Education Learning Activities. . 97

71 Learning Activity Costs and Type of Provider 98

72 Cost of Learning Activity and Credit Content of Activity . . . 99

73 Learning Settings for Continuing Education Activities. 100

74 Class Sizes in Continuing Education Activities 100

75 Meeting Times of Continuing Education Activities 101

76 Meeting Day of Continuing Education Activity 101

77 Weekly Class Hours Required for Continuing Education Activities. 101

78 Total Length of Continuing Education Activities. 102

79 Institutional Constraints on Continuing Education Learning Activities. 102

80 Institutional Restrictions Placed on Learning Activities . . .103

81 Programs Offered by Providers in Spring 1974 104

82 Recognition for Completion of Continuing Education Learning Activity 105

83 Focus of Programs in Continuing Education Learning Activity. .105

84 Number of Credit Hours Which Can Be Earned by Special Assessment. .106

85 Sources From Which Institutions Will Accept Assessment or Experience in Awarding Credit to Adult Education Students .107

Table Page

86 Financial Aid Programs Available to Adult Education Students .107

87 Support Services Provided for Continuing Education Students. .108

88 Faculty Composition in Continuing Education Programs 109

89 Sources Consulted by Educational Institutions When Originating New Programs and Learning Activities. 109

90 Institutional Sources of Funding For Continuing Education Programs. 110

91 Purposes of Proprietary Institutions Surveyed in the Central Region. 111

92 Main Purposes of Organizations and Agencies in Social/Cultural/Professional Category. 112

93 Target Audiences for Social/Cultural/Professional Learning Activities 112

94 Social/Cultural/Professional Learning Activities 113

95 Other Locations Utilized for Course Offerings. 114

96 Staff Training Needs Expressed by Social/Cultural/Professional Organizations and Agencies 114

97 Categories of Employers Surveyed 115

98 Total Number of Employees Working for Firms. 115

99 Employee Training Needs Listed by Employers. 116

100 Employers' Priority Training Needs for Different Categories of Employees 117

101 Changes in Skill Types and Employee Training Needs Expected by Firms -- Ranked by Priority 118

102 Employee Training Programs in Central New York Firms 119

103 Relationship of Firm Size to Sponsorship of Employer-Based Training Activities 119

Table Page

104 Employer-Sponsored In-House Training Courses for Employees 120

105 Number of Employees Per Firm Involved in Employee Training - 1973-1974. .121

106 Number of Employees Per Firm Involved in Adult/Continuing Education Learning Activities - 1973 and 1974 121

107 Employer Financial Support of Employee Continuing Education Activities. 122

108 Relationship of Size of Firm to Availability of Support For Employee Continuing Education 123

109 Conditions for Obtaining Employer Financial Support. 124

110 Incentives Offered to Employees to Encourage Participation in Continuing Education 124

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INTRODUCTION

In recent years, human lives have been significantly affected by the acceleration of social and technological change in our world. Individuals have recognized the impact of these changes in the evolution of our jobs, our political realities, our personal roles and even the values in our society. As a result, many people have developed a personal concern about the need to keep up with these changes--a task which has been further complicated by the concurrent explosion of information. Not only are adults faced with finding ways to meet and respond to the challenge of occupational obsolescence, demands for upgrading of skills and the availability of increased leisure time but they are also confronted with an ever-expanding amount of information available for application to the problems and difficulties posed by these changes.

Although individuals must respond to these problems in a personal way, their responses to a changing and complex world may be facilitated through continuing education. That growing numbers of adults of all ages have already chosen this path is demonstrated by the statistical evidence of their participation in diverse learning activities offered by a variety of institutions, organizations and agencies. Such continuing education or lifelong learning may enable adults to better cope with change as well as to pursue personal fulfillment, outcomes which are beneficial to both society and the individual. This, then, is education in a broad sense-- that which continues throughout the lifespan of the individual and is not confined only to the years of childhood or youth. It encompasses learning activities in many different settings and utilizing a wide range of methods and materials. In particular, it is education which is appropriate to the needs of the individual at each successive period of his or her life.

If continuing education is to respond to the needs of adults for lifelong learning, we must first have a clear picture of what these needs are and what is now being done to satisfy them. As part of a statewide effort to contribute necessary information for the improvement of planning, administration and delivery of continuing education services, the Central Region Studies are an attempt to discover more about adult learning interests, the needs for continuing education services and the present delivery system. This project, one of eight regional projects in New York State, is funded under Title I of the Higher Education Act of 1965, administered by the N.Y.State Education Department, Bureau of Special College Programs.

CHAPTER I

CONTINUING EDUCATION--A PERSPECTIVE ON THE PROBLEM

Adults are presently utilizing continuing education services in greater and greater numbers. Although interpretations differ as to what specific activities constitute continuing education, there has been a persistent trend towards greater participation by adults throughout the last fifteen years. A U.S. Office of Education survey indicated that approximately 9,000,000 people in 1959 participated in adult education; by 1969, this figure had grown to 13,000,000 adult participants. Using a definition of continuing education which encompassed activities in a wide array of settings, Johnstone and Rivera (1965) indicated that about 25,000,000 individuals, about one adult in five, took part in some type of adult education activity during the preceding year. More recently, Moses (1971), also interpreting continuing education as including both formal and non-formal activities, estimated that about 82,000,000 adults would be participants in continuing education activities by 1975.

Although these varied statistics serve to emphasize the rapidly growing role of continuing education the potential audience for educational services is undeniably large. Other evidence suggests that virtually all adults can be considered as potential participants. Studies of adult learners by Tough (1971), Coolican (1974) and others show that the vast majority of adults undertake one or more self-planned learning projects each year, each involving a sustained and deliberate effort to learn some knowledge or skill. While many of these adults were found to be capable of planning and carrying out their projects without outside help, others sought assistance or instruction from a variety of sources including organized classes and individual instruction or advice.

Although data on participation by adults and the range of services presently available in continuing education are impressive, there are still massive numbers of people who do not participate in any type of organized learning activities. In this country participation in adult education is voluntary--individuals may choose to take part or not. As a result, studies of participation in continuing education activities indicate that certain groups engage in educational activities provided for adults in numbers greater than their proportion of the population (Houle, 1961; Lappin, Charters and Liverright, 1969; Johnstone and Rivera, 1965). For example, participation has been found to be highly related to the previous education people have had. In general, the more education people have experienced, the more likely they are to seek more. Thus, the typical participant is apt to be a middle-class individual who is already relatively well-educated.

The fact that certain groups within society participate in continuing education activities more frequently than others, means that other groups participate less often or perhaps not at all. Noting this situation, Verner and Newberry (1965) warned: "At present, a distinct minority of the adult population is involved and as a result adult education is widening the gap between the educated and the educationally underprivileged by encouraging the former to continue learning and thus keep in step with changing conditions while the latter group is left in a growing state of maladjustment." (p.13)

Clearly, many individuals are not taking advantage of existing continuing education opportunities. Little is known about the obstacles and barriers which prevent these potential learners from participating

(Paisley, et. al., 1972). Nevertheless, in our continuing education system--dependent upon voluntary participation--more complete and accurate information for both learners and providers of services available is an essential link in the process. The learner requires knowledge of his or her own educational needs and interests and also awareness of the appropriate learning activities designed to satisfy these needs. Providers of educational services make program and policy decisions based on their knowledge of adult needs and circumstances; they must also supply adequate information to bring their services and offerings to the attention of potential clients.

As a consequence, improved information is a necessary first step in improving the delivery of continuing education services to present and potential learners. The present study proposes to address this problem. Its central purpose is to improve regional planning, administration and programming for continuing education through an examination of adult needs and learning resources in an eleven-county area of Central New York State.

Objectives of the Study

In keeping with the overall purpose of the study of adult needs, continuing education planning and services in the region, the following research objectives were set forth.

1. To assess the continuing education needs of adults in the region studied (including learning interests and priorities, information and counseling needs and perceived barriers to participation).

2. To inventory continuing education opportunities available in the region. These include opportunities provided by educational institutions, business and industry, government agencies, and social, civic and professional organizations.
3. To utilize the data obtained in developing a proposed model for improving the delivery of continuing education information and counseling services for adults.

CHAPTER II

RESEARCH METHODS

The studies were conducted in an eleven county area of Central New York State. This region includes Broome, Cayuga, Chenango, Cortland, Delaware, Madison, Onondaga, Oswego, Otsego, Tioga and Tompkins counties.

In order to fulfill the project objectives of assessing continuing education needs of adults and inventorying the continuing education opportunities available in the region, three separate research efforts were identified.

These were:

1) a demographic profile and analysis of the eleven county region;
2) a survey of adults in the region about their continuing education needs and interests;
3) a survey of providers of educational services in the region.

The Demographic Profile of the Central Region

Data were collected from the following sources:

- Bureau of the Census Reports, 1960 and 1970
- demographic publications of the New York State Office of Planning Services
- People of New York State Counties, prepared as part of Cornell University Agricultural Experiment Station's study of "Rural Dominance and Social Change, and
- 1974 New York State Statistical Year.

Profiles of each county in the region were prepared, describing the population of the study region with regard to such characteristics as age, sex, income, level of education, occupation and labor force status. These data were intended to provide a base for understanding the demographic composition of the region, documenting social and economic trends and identifying target audiences for continuing education. A further description of the region based on this demographic profile is in Chapter III.

The Assessment of Continuing Education Needs of Adults

In the fall of 1973 a survey instrument to obtain information from adults about their perceived learning needs, conditions for learning and barriers to participation was developed and field tested. This instrument was designed to be administered by trained interviewers in personal contact with respondents. Each interview required about one-half hour to complete.

The personal interview format was selected to allow a maximum of free response by respondents. In discussions with specialists in continuing education and research design, it was concluded that the most accurate description of an individual's learning interests and conditions for learning would be elicited by use of open-ended questions. These questions covered the individuals general and priority learning interests, preference for credit or certification, preferred conditions for learning activities, barriers to participation in continuing education activities and sources of information about continuing education in the community.

Following the field test, a review and revision of the instrument was made. For copy of the completed survey instrument, see Appendix A. Next, volunteer interviewers were identified and training sessions held. These sessions covered the field techniques necessary to properly administer the instrument.

The Sample of Adults

All persons at least 18 years of age or older and not presently full-time students were determined to be the population of interest for the survey. Trained volunteer interviewers from 64 communities in the eleven counties then interviewed adults meeting these criteria selected at random from a variety of neighborhoods in each community. For data analysis, the resulting sample of 1502 adults was stratified into six occupational groupings. These categories and examples of occupations included in each category are:

1. Farm and Farm Workers--Self-Employed Farmers, Farm Laborers.
2. Service Workers--Cooks, Elevator Operators, Child Care Workers, Foremen, Police Officers, Food Service Personnel, Cleaning Persons, Dishwashers, Barbers, Hairdressers, Guards, Watchmen, Orderlies, Practical Nurses.
3. Blue Collar Workers--Carpenters, Mechanics, Repairmen, Brickmasons, Electricians, Plumbers, Tailors, Construction Workers, Freight and Material Handlers, Teamsters, Bus Drivers, Deliverymen, Parking Attendants, Taxi Drivers, Railroad Conductors, Typesetters, and Electric Power Linemen.
4. White Collar Workers--Engineers, Physicians, Health Workers, Teachers, Accountants, Architects, Computer Programmers, Lawyers, Scientists, Clergymen, Editors, Bank Officers, School Administrators, Postmasters, Sales Representatives, Bookkeepers, Secretaries, Cashiers, Bill Collectors, Office Machine Operators, Shipping Clerks, Teacher Aides, and Telephone Operators.
5. Unemployed
6. Homemakers (those not employed outside the home)

The study sample obtained was compared to the demographic characteristics of the Central Region (Table 1). As expected, some discrepancies between the Census data and the study sample exist as a result of the sampling method. Since study participation was voluntary, many of the respondents were likely to be those who had some interest in further learning and who were willing to be interviewed about their learning needs in some detail. This voluntary participation served to restrict representation in some groups (e.g., those with 0-8 years of formal education) who compose a significant sub-group within the Central Region population. In general, there is a skewing of the sample toward the higher levels of formal education, that is, individuals with some post-secondary education or a college degree; males are also over-represented.

Since the Central Region contains a mixture of rural and urban communities, there was special interest in the characteristics of individuals residing in urban vs. rural areas. The adults included in the sample differed by age group according to their place of residence. Table 2 shows that fewer young adults were interviewed in the more rural areas of the study region. The sample from these areas includes proportionately more adults of ages 26 to 35 and age 51 and over than the more urban areas. This, however, reflects the actual population characteristics of these geographic areas. Delaware County, for instance, a rural, sparsely populated county (25.8% of the population classified as urban) has the highest median age (30.7 years) of any of the Central Region Counties.

TABLE 1

Comparison of Selected Characteristics for Central Region Population

Study Sample		Central Region 1970[1]	
Characteristic	% of Sample	Characteristic	% of Population
Sex: Male	59.4	Sex: Male	48.7
Female	40.6	Female	51.3
Age: 18-25	18.8	Age: 18-24	19.8
26-35	26.5	25-34	17.9
36-50	31.8	35-49	25.4
51+	22.9	50+	36.9
Education:		Education:	
Population age 18 and older		Population age 25 and older	
0-8 years	2.9	0-8 years	21.5
9-12 years	43.9	9-12 years	55.0
1-3 years college	29.3	1-3 years college	10.8
4+ years college	23.9	4+ years college	12.7
Race: White	98.3	Race: White	97.0
Non-white	1.7	Non-white	3.0
Income:			
$5000 or less	24.4		
$5000-10,000	37.4	Median Family Income Range	
$10,000 or more	38.2	$8494 - $10,836	
Occupation:		Occupation:	
Farm	9.2	Farm	1.8
Service	10.6	Service	7.9
Blue Collar	18.5	Blue Collar	21.4
White Collar	43.6	White Collar	31.6
Unemployed/Not Working Outside the home	18.1	Unemployed/Not Working Outside the home	37.3

---

[1] Source: U. S. Census of Population: 1970, 4th County Population Summary Tape

TABLE 2

Age Composition of Sample by Total Population of City or Township of Residence

Population of Place of Residence

Age		3000 or fewer N	%	3000 - 10,000 N	%	10,000 or More N	%	TOTALS
18-25	N	71	13.5	93	20.4	113	23.3	227
	%	25.6		33.6		40.8		100.0
26-35	N	147	27.9	126	27.6	116	23.9	389
	%	37.8		32.4		29.8		100.0
36-50	N	163	31.0	150	32.8	153	31.5	466
	%	35.0		32.2		32.8		100.0
51+	N	145	27.6	88	19.3	104	21.4	337
	%	43.0		26.1		30.9		100.0
TOTALS		526	100.0	457	100.0	486	100.0	1469

These differences also extend to the educational levels of the adults interviewed from these three categories. The areas of the highest population also have the highest proportion of adults with formal education beyond high school. In the more rural areas, there are proportionately more adults in the sample with a high school education or less; these outnumber those with post-secondary education by 8 percent (see Table 3).

TABLE 3

Educational Background of Sample by Total Population of City or Township of Residence

Population of Place of Residence

Education		3000 or fewer N	%	3000 - 10,000 N	%	10,000 or more N	%	TOTAL
High School or less	N	289	54.0	222	48.4	183	37.5	694
	%	41.6		32.0		26.4		100.0
More than High School	N	246	46.0	236	51.6	304	62.5	786
	%	31.3		30.0		38.7		100.0
TOTAL		535	100.0	458	100.0	487	100.0	1480

The Inventory of Central Region Learning Opportunities

In order to further our knowledge of the full extent of the learning resources available within the Central Region, providers* of such learning opportunities were identified and surveyed. This effort, beginning in the Fall of 1973, focused on the entire range of continuing education activities offered in a variety of learning settings: degree-granting colleges and universities, public schools and Boards of Cooperative Educational Services (BOCES) facilities, proprietary institutions, The Cooperative Extension Service, government agencies, social, cultural, religious and professional organizations as well as employer-based activities in business, industry and service firms and institutions. Information was sought on credit and credit free activities, including learning activities intended to satisfy the vocational, avocational and personal fulfillment needs of adults. Both traditional and non-traditional modes of study were included in the inventory. Other questions involving size and funding of programs, information needs of providers and plans for expansion of present continuing education activities were designed to obtain information about continuing education planning, policy and decision-making.

These institutions, organizations and agencies constituted a diverse group of providers with varying degrees of emphasis and involvement in continuing education. This emphasis ranged from agencies which were established to meet the educational needs of adults (e.g., adult education centers) to organizations and agencies for whom continuing education is a secondary or minor part of their total effort. Because of these observed differences in continuing education programming among providers, separate survey forms

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*For the purposes of the present study, providers of learning opportunities were defined as educational institutions, employers, government agencies, social, cultural, religious, professional organizations and agencies which engaged in any intentional and organized educational service for persons age 18 or older.

(see Appendix B) were designed to be used with different categories of providers in order to obtain program and policy information specific to each category. The four groups and the providers included in each are:

1. Higher Education--degree-granting two and four-year colleges and universities.
2. Other Educational Institutions--public schools, BOCES, vocational, private and proprietary institutions.
3. Organizations and agencies (social, cultural, government, religious, professional).
4. Employers.

Higher Education Survey

The Central Region has 21* institutions of higher education composed of both two and four-year institutions under public and private control (Table 2). These institutions are distributed in nine of the eleven counties of the region as indicated on the accompanying map.

TABLE 4

Institutions of Higher Education

Providers	N
Community Colleges	4
Two-Year Ag. & Tech Colleges	2
Two-Year Colleges (Private)	2
Four-Year Colleges (Private)	5
Four-Year Colleges (Public)	4
Universities (Private)	2
University (Public)	1
Medical Center (Public)	1
	21*

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*For purposes of data analysis, responses obtained from the two component schools of the state supported medical center were treated separately since continuing education activities differed. This yielded an N of 22 for most of the data analyzed.

Through the cooperative efforts of personnel from the Regional Learning Service and project staff, a three-part questionnaire was designed to obtain: 1) General information about the institutions; 2) Program information (e.g., part-time degree programs; programs designed for special groups of learners); and, 3) Information about courses or separate learning activities for continuing education students. Starting in the Fall of 1973, contact with the participating institutions was initiated to advise them of the purpose of the study and to inform administrators of the type of information to be requested. Next, the survey instrument was mailed to the Director of Continuing Education or Campus Continuing Education representative at each institution. This was followed by a personal visit by a RLS representative or study staff member to answer questions and assist in obtaining the necessary data.

All parts of the survey form were completed by institutions with limited continuing education enrollments or small programs. In spite of the fact that the inventory of continuing education activities emphasized those activities which are open to part-time students or offered in late-day, evening or weekend time periods, many institutions were asked to complete the general and program information on the survey forms and to provide course information in a convenient format. Thus, large institutions were able to indicate their offerings by providing annotated catalogs or listings compiled by computer. All institutions provided assistance and supplied data for the study.

Other Educational Institutions

In the Spring of 1974, questionnaires were developed for the group of educational institutions including public schools, BOCES, vocational schools, private schools and proprietary institutions. The Directory of Public School

Continuing Education Programs in New York State, Fall, 1973 listed 64 public schools and 9 BOCES with continuing education programs. Survey forms were mailed to these providers along with a letter explaining the purpose of the study and requesting completion of the necessary information about the institution's continuing education program. Several follow-ups were conducted by telephone or in person, to insure return of these data. The follow-up process revealed that several schools had discontinued their continuing education efforts due to financial cuts and that others were operating their programs in cooperation with the local BOCES. Usable data were received from all 9 BOCES and 28 of the 64 public schools in the region.

The remaining institutions, such as vocational and proprietary schools, were identified through directories of accredited private schools, schools with occupational programs and local directories. A total of 131 institutions identified in this manner were contacted by mail and requested to supply information about their continuing education activities for adults. Forty-one replies were received and three other schools were found to have ceased operations. This yielded an adjusted overall response rate of 32 percent for this group. However, since several schools indicated that they either did not conduct activities which fit the definition of continuing education learning opportunities or did not teach adults, analysis was based on 37 valid responses.

Survey of Organizations and Agencies

This category of providers was found to be the most diverse in general characteristics, content and scope of the continuing education activities of the organizations and agencies included in the survey. Whenever possible, these organizations and agencies were identified by means of local community service directories or similar listings. In addition, local residents and resource persons were asked to identify other organizations or groups in the community which might be sponsors of continuing education activities for adults. This step was necessary in order to locate organizations which might be unique to a community or which had not been listed in local area directories. This effort succeeded in identifying a wide range of social, cultural, government, religious, professional and community groups known to sponsor educational activities. Included among them were: YMCA's, YWCA's, churches, the Cooperative Extension Service, libraries, community centers, Senior Citizens' Programs and many others.

Through the efforts of local Cooperative Extension Service personnel, volunteer interviewers were recruited in each county. These volunteers were then trained in the use of the special interview form to obtain the necessary data from the respondents. These interviewers then contacted the organizations and groups identified previously and requested information about continuing education activities open to adults. Interviews were conducted by telephone, or in person at the respondent's convenience. Activities available to the general public, to membership only and to staff were included in the inventory. In this way, a total of 226 organizations or agencies in the eleven county region reported on their continuing education programs.

It is recognized that this number does not include all groups which might offer continuing education to adults. The potential number of such providers is unknown since no exhaustive listing of all organizations sponsoring continuing education activities is available and since providers in this group may initiate educational offerings on short notice when an interest or need is discerned. However, although all possible groups were not included in the inventory, a special effort was made to contact all major organizations (national or state) which have an educational purpose.

The 226 organizations which reported on their activities are thus regarded as a sample of the providers in this category.

Survey of Employer-Based Continuing Education

A fourth separate survey effort was focused upon a special group of providers of continuing education opportunities--the employers in the Central Region. Some employers, mainly large firms provide in-house training for employees; others facilitate employee educational efforts through tuition reimbursements and other incentives. In mid-1974 a questionnaire was developed to obtain information from employers about their training opportunities, educational incentive plans for employees and training needs for the future. This questionnaire was mailed to personnel directors in 455 Central Region firms.

The employers surveyed were in businesses and industries included in the New York State Department of Commerce listings for the Central Region counties. These were firms which met minimum employee standards for inclusion.* In the more rural counties, these lists were supplemented by Chamber of Commerce membership rolls in order that some representation from each county might be achieved. Ninety-one usable replies were obtained, a response rate of 20 percent.

Classification of Information on Learning Resources and Learning Needs

Respondents to the data collection instruments listed an extensive array of learning interests and learning activities for adults. To provide for the orderly storage and retrieval of information, and to permit comparison among continuing education needs and resources data, a classification system based on subject areas in continuing education was developed. This system was compiled from the widely-used higher education classification system (HEGIS), the State Educational Records and Report

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*Minimum employee criteria for inclusion of firms ranged from 50 to 200 employees, depending on the size of the community.

Series: Handbook VI and various resources in Continuing Education. The resulting subject-area classification system is included in the appendices to this report (Appendix C).

CHAPTER III

CHARACTERISTICS OF THE CENTRAL REGION

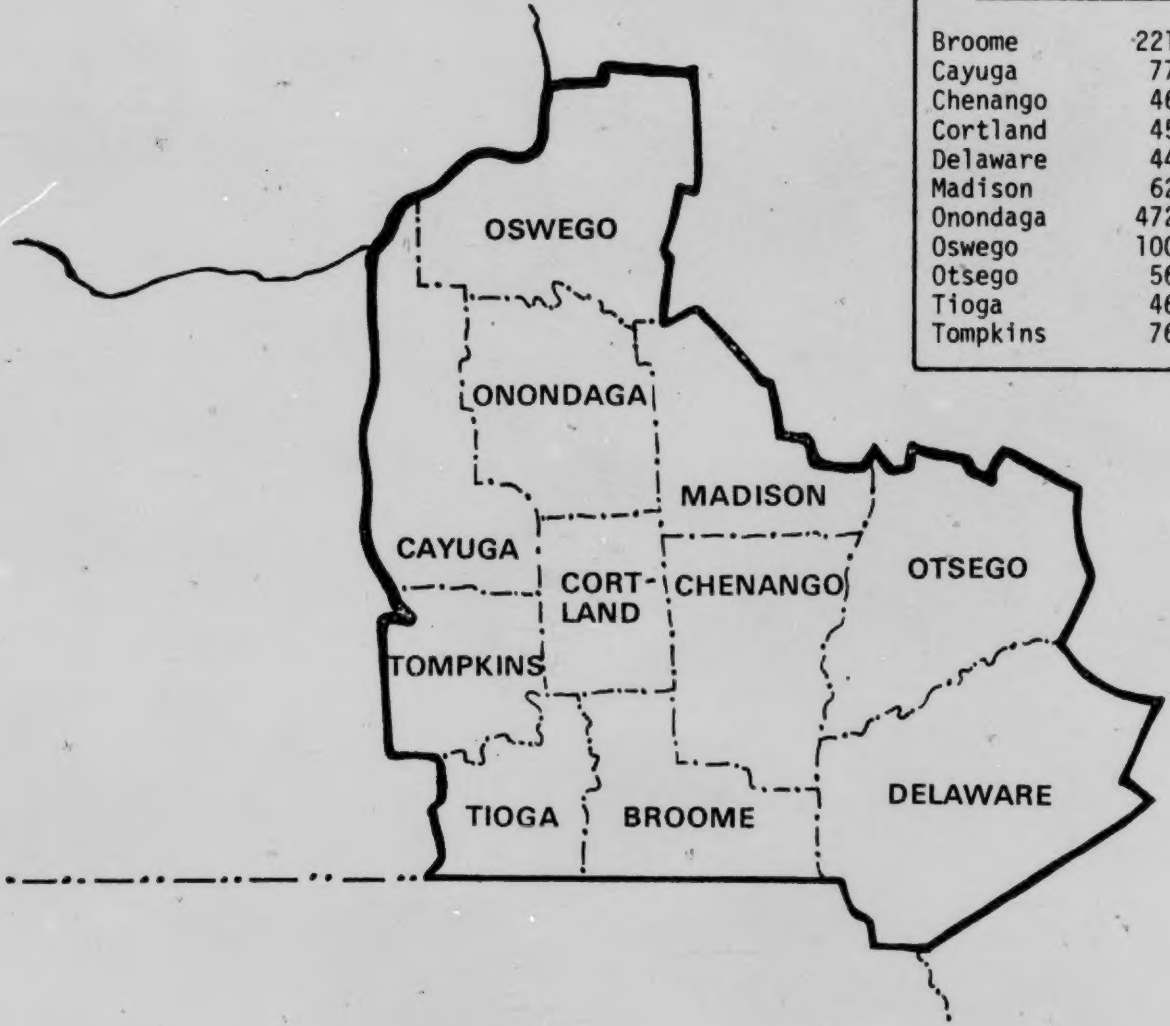
The study region is composed of eleven counties in the central section of New York State. It is a region of diverse characteristics, ranging from the comparatively metropolitan Broome and Onondaga Counties to predominantly rural counties such as Delaware and Otsego.

The total area occupied by this region is 8,709 square miles, with Oswego, Delaware and Otsego counties occupying the largest areas. (See map on page 21). In 1970, the U.S. Census determined that the region had a population of approximately 1,252,600, up from 1,134,190 in 1960. This total is still increasing. In the 1975 estimates the population is projected at 1,307,700, an increase of 55,100 over the 1970 total.

During the decade 1960 to 1970, all counties experienced a gain in total population, although this growth occurred unevenly across the region. The largest percentage gains were found in Tioga (+23%), Oswego (+17.2%), and Tompkins (+16.5%) counties, while Delaware County increased by only 2.7 percent during the same time period.

Although the population clearly has been growing and is continuing a moderate rate of increase, other trends and changes in its characteristics can also be noted. The most significant population gains have occurred among those 15 to 24 years of age and among those age 65 and older. This fact, viewed together with the gradual decrease in the population under 7 years of age, leads to the conclusion that the trend is toward an increase in the average age of the population. At present, more than 60 percent of the population in the region is over eighteen years of age (See Figure 1).

Central Region Continuing Education Studies


OSWEGO
ONONDAGA
MADISON
CAYUGA
CORT-
LAND
CHENANGO
OTSEGO
TOMPKINS
TIOGA
BROOME
DELAWARE

Population 1970

Broome	221,815
Cayuga	77,439
Chenango	46,368
Cortland	45,894
Delaware	44,718
Madison	62,864
Onondaga	472,746
Oswego	100,897
Otsego	56,181
Tioga	46,513
Tompkins	76,879

FIGURE 1

Age Distribution of Central Region Population
1970 Population

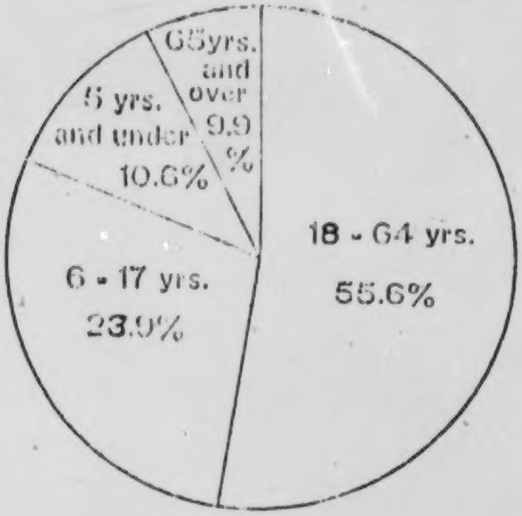
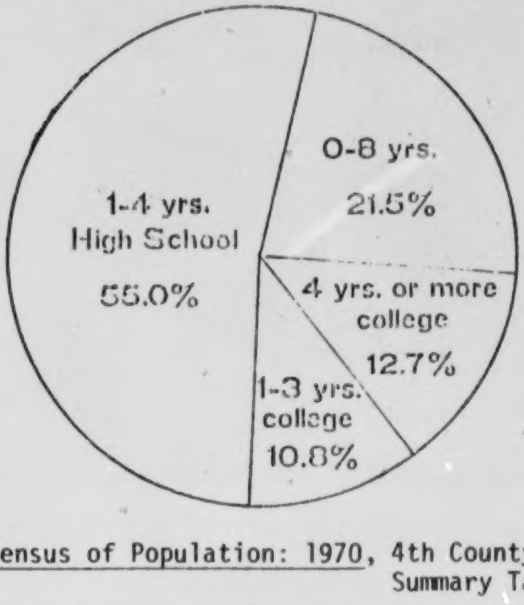


FIGURE 2

Educational Background of Central Region Adults - Age 25 and Over
1970



Source: U. S. Census of Population: 1970, 4th County Population Summary Tape

These population characteristics have special implications for future planning in continuing education since they may indicate increasing demand for educational opportunity for those beyond the traditional "school years".

Similarly, the level of education in the region is rising. In 1970 for those aged 25 years and older, approximately 55 percent had completed (1-4) years of high school and 24 percent had completed (1-4) years of college or beyond (See Figure 2).

The region has a number of metropolitan centers, the two largest being Syracuse and Binghamton located in Onondaga and Broome Counties. These two centers provide a substantial portion of the employment opportunities for the surrounding areas. In these two urban centers, the major employers are manufacturing firms, particularly those which produce electrical machinery, equipment or supplies. However, throughout the region, the industrial trend from 1960 to 1970 has been shifting from production of non-durable consumer goods to durable goods manufacturing (See Figure 3). Non-manufacturing employment grew rapidly in the last decade, especially in the areas of services, trades, public administration, government, insurance and real estate.

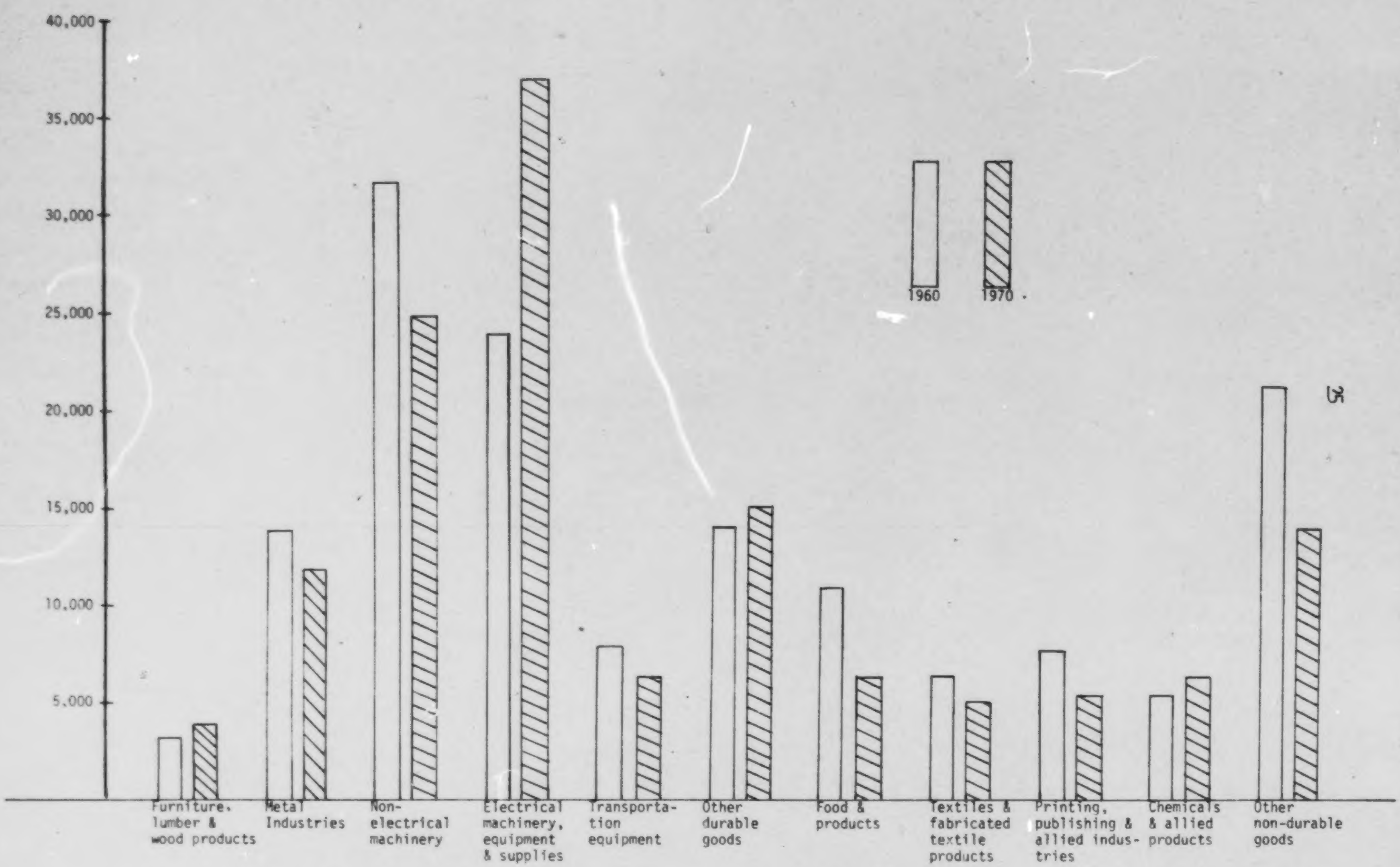
Table 5 illustrates the occupational composition of each county, based on employed persons 14 years of age or older. Among those occupational groups, the largest job gains in the region over the previous decade have been in the white collar segment--the professional, technical and clerical occupations. Many other types of employment, including employment of domestic household workers, self-employed persons, unpaid family help and agricultural workers, decreased during this period. The outlook by industry indicates that by 1976 non-manufacturing jobs will have increased over jobs in manufacturing. Agricultural employment which has diminished over the years will continue to decline. These changes in the employment situation suggest areas of increased demand for learning situations which will enable people to acquire skills and other learning relevant to emerging employment opportunities.

In addition to the trends already noted, changes have occurred in the urban-rural composition of the study counties. Although there has been a general decrease in the urban population of the region with a corresponding increase in the rural population, this increase has taken place in the rural, non-farm category. Between 1960 and 1970, the farm population in all Central Region counties dropped sharply. The percentage of decrease in this group ranged from a high of 58 percent in Broome County to 28.7 percent in Madison County with eight of the eleven counties evidencing decreases in farm population of 40 percent or more.

This situation also suggests special problems for continuing education planning. Providers of continuing education services are generally located in or near the metropolitan centers. With the growth of rural or suburban populations, access to educational facilities may become more difficult for the ever-increasing numbers of these residents. There may already exist a gap in services which will widen as the population continues to shift.

Figure 3

Employment in Central Region Manufacturing Industries for Persons Age 14 and Older, 1960 and Age 16 and Older, 1970



Sources: U.S. Census of Population: 1960, PC(1) - 34C, Table 85
U.S. Census of Population: 1970, PC(1) - 34C, Table 123 and 4th Count Population Summary Tape

TABLE 5

Percent Employed Persons 14 years old and over in Major Occupation Groups by County, 1970

Major Occupation Group	Broome	Cayuga	Chenango	Cortland	Delaware	Madison	Onondaga	Oswego	Otsego	Tioga	Tompkins
Professional, Technical, Kindred Workers	19.0	12.3	12.6	12.4	12.1	14.0	17.3	12.9	14.9	19.3	25.6
Managers & Administrators Except Farm	7.7	6.5	6.3	6 5	7.9	6.6	7.8	6.0	6.8	6.9	7.0
Sales Workers	6.4	5.5	5.1	4.9	4.7	5.2	8.4	5.4	5.4	5.3	4.2
Clerical & Kindred Workers	16.4	14.2	13.2	14.0	11.5	15.5	19.9	14.5	13.8	13.2	16.6
Craftsmen, Foremen & Kindred Workers	11.7	14.2	12.6	13.7	13.3	12.9	11.8	16.1	12.1	12.6	9.7
Operatives, Except Transport	14.0	17.1	16.2	16.9	11.4	13.2	10.7	16.6	10.1	15.5	7.0
Transport Equipment Operatives	2.9	3.7	4.0	3.4	4.4	4.1	3.1	4.7	3.5	3.7	2.0
Laborers, Except Farm	2.9	3.5	4.5	4.1	4.5	3.7	3.2	4.1	3.9	2.9	2.4
Farmers & Farm Managers	0.4	2.9	4.4	3.4	6.5	4.4	0.5	1.6	5.3	2.8	1.4
Farm Laborers & Farm Foremen	0.4	1.8	2.5	2.8	4.5	3.3	0.4	0.8	3.0	1.7	1.2
Service Workers Except Private Household	10.9	11.3	9.8	9.7	11.0	10.7	10.2	10.4	14.3	10.1	11.4
Private Household Workers	0.8	0.8	2.0	1.6	2.3	1.6	0.7	1.0	2.0	0.9	1.5
Occupation Not Reported	6.2	6.1	6.8	6.6	5.9	4.8	6.0	5.9	4.9	5.1	10.0

SOURCE: U.S. Census of Population: 1970, 4th Count Population Summary Tape

CHAPTER IV

ADULT CONTINUING EDUCATION NEEDS AND INTERESTS IN THE CENTRAL REGION

An understanding of the learning interests and preferences of adults is a necessary component in planning and administering continuing education services. Thus a major focus of this data collection effort was to learn more about what adults wished to study as well as what differences might exist among various sub-groups of adults in the region or among people of differing characteristics. In addition to finding out more about the learning interests of adults, the study sought to discover the conditions and circumstances under which adults would participate in learning activities and what obstacles or barriers they felt would prevent their participation. These findings are described in the sections below.

Learning Interests of Central Region Adults

In the personal interviews conducted with the 1502 adults in the region, most of those surveyed indicated that there were some topics or subject areas that they wished to learn more about. Only 41 persons (2.7%) replied that they were not interested in continuing education activities; the other respondents were able to name one or more topics of personal interest to them.

In the interview session, the adults were asked to freely express their learning interests in seven categories; vocational development, home and family living, hobbies and recreation, personal development, public affairs, religion or ethics and general education. From this array of topics, the respondent was asked to select his or her priority learning interest, that is, the subject or topic which the individual would most like to learn about. Succeeding questions were then based upon the subject's stated learning priority.

Learning interests specified in the seven free response categories totaled 12,119 expressions of interest, an average of approximately eight topics per adult. These responses when aggregated show the social sciences, trades and business areas to be the most popular areas for study, followed by home and family living, physical education and the fine and applied arts and crafts. Table 6 summarizes these total learning interests.

TABLE 6

Total of Expressed Learning Interests of Adults (N=1416)

	N	% of Total
Social Sciences/Psychology	1927	15.90
Trades	1415	11.68
Business	1313	10.83
Home Economics, Home & Family Living	1172	9.67
Physical Education	1149	9.48
Fine & Applied Arts & Crafts	1148	9.47
Health	849	7.01
Agriculture	782	6.45
English	680	5.61
Religion	474	3.91
Natural Science	198	1.64
Foreign Language	197	1.63
Mathematics	148	1.22
Health Professions	131	1.08
Law	129	1.06
Education	95	.78
Computer Science	87	.72
Engineering	67	.55
Public Service	48	.40
Communications Skills	39	.32
Architecture	35	.29
Area Studies	11	.09
Degree Studies	11	.09
Library Science	7	.06
Interdisciplinary Studies	5	.04
Military Science	2	.02
	12,119	100.00

The order of learning interests varied slightly when the respondents were asked to select their priority interest from among these topics. Of the 1416 adults who listed their learning interests, 187 were either undecided about which subject area was of most importance or were unable to answer this question. Hence, a total of 1274 adults provided answers to this question. In general, business and trades subjects emerged as main interests for these adults followed by study in the social sciences or psychology, fine arts and home and family living (See Table 7). This ranking corresponds more closely to the subject areas actually studied by adults in this study who have participated in continuing education. Although participants and non-participants are discussed in greater detail later, the ten most frequently studied subject areas are presented in Table 8.

TABLE 7

Adults' Priority Learning Interests (N=1274)

	N	%
Business	223	[illegible].5
Trades	223	17.5
Social Sciences/Psychology	147	11.5
Fine Arts	106	8.3
Home Economics, Home & Family Living	102	8.0
Agriculture	93	7.3
Health and Safety	55	4.3
English	53	4.2
Health Professions	49	3.8
Physical Education & Recreation	44	3.5
Natural Science	26	2.0
Education	21	1.6
Engineering	21	1.6
Foreign Language	21	1.6
Law	21	1.6
Math	17	1.3
Religion	14	1.1
Public Service	11	0.9
Computer Science	10	0.8
Architecture	5	0.4
Communications	4	0.3
Degree Studies	3	0.2
Library Science	3	0.2
Area Studies	2	0.2
Interdisciplinary Studies	0	0.0
	1274	100.0

TABLE 8

Ten Subject Areas Most Frequently Studied by Continuing Education Participants

RANK	SUBJECT AREA	%
1	Business	24.4
2	Trades	15.7
3	Fine and Applied Arts	10.0
4	Home Economics, Home and Family Living	8.3
5	Social Sciences	5.8
6	Health	5.3
7	Physical Education	5.1
8	Agriculture	3.8
9	Education	3.5
10	English	3.5

Adults' Preferred Learning Conditions

If adults are to act upon their continuing education interests by seeking instruction offered by providers of educational services, they must identify the appropriate learning activities which meet their needs and personal circumstances. The decision of whether or not to participate in a particular learning activity may be based upon such factors as the setting or learning environment in which the activity is offered, the method(s) of instruction, the time commitment required or the need for credit or certification. Consequently, adults were asked a series of questions in order to ascertain their preferences for various learning conditions.

Table 9 indicates that the most frequently desired location for study is the public school, preferred by 40.1 percent of the adults. Since the second choice mentioned was a two or four year college or university location, almost two-thirds of the adults stated a preference for learning in an educational institution. A partial explanation for this preference may be that adults still strongly associate education with the traditional and familiar school and college sites. Other reasons may be that people feel more comfortable with the idea of studying in their local public school building. Further, schools are located in and serve each community, an observation which underscores their convenience for most adults. This convenience could mean a saving in both travel time and transportation costs for participants.

TABLE 9

Adults' Preferred Learning Settings

Setting	N*	%
Public School	665	40.1
2 or 4 year college	392	23.6
Business/Industrial Site	218	13.1
Home	176	10.6
Community Location (e.g., church, library, YMCA, etc.)	84	5.3
Other	120	7.3
	1665	100.0

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*Some adults specified more than one setting.

When adults were asked what instructional methods they would prefer for study in their chosen area of interest, workshop and lecture methods were most often mentioned. These are familiar and frequently used methods; their popularity corresponds to the adults' preferences for learning in educational institutions. However, many respondents showed an interest in less traditional methods since approximately 16 percent of the adults felt that on-the-job instruction would best suit their requirements. While other forms of instruction such as travel-study, correspondence courses, independent projects and audio-visual methods did not rank as high as workshop, lecture or on-the-job methods, together they represented one-third of the preferences of the adults interviewed. This indicates that a sizeable portion of the sample which is interested in less-traditional forms of instruction (See Table 10).

TABLE 10

Adults' Preferred Mode of Instruction

Method	N*	% of Total
Workshop	487	26.9
Lecture	378	20.9
On-the-Job	288	15.9
Group Project	166	9.2
Independent Project	165	9.1
Correspondence	103	5.7
Travel-Study	75	4.2
Tutoring (Individual Instruction)	48	2.6
Audio-Visual	47	2.6
Other	52	2.9
	1809	100.0

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* Some adults specified more than one method

The amount of time which an adult prefers or is able to spend on a learning activity is another factor which enters into his decision to pursue an activity. This includes both the amount of time per week he or she is willing to allocate to study and the total length of time he or she is willing to spend on the learning activity. Tables 11 and 12 show that most adults would be willing to spend two to four hours a week on courses and that they would prefer to have the courses last from one to six months.

TABLE 11

Hours Per Week Which an Adult Would Spend on a Learning Activity

Number of Hours Per Week	N	%
One	56	4.3
Two	364	28.1
Three	300	23.2
Four	283	21.9
Five	64	4.9
Six	53	4.1
Seven	18	1.4
Eight or More	156	12.1
TOTAL	1294	100.0

TABLE 12

Total Length of Time Which an Adult Would Be Willing to Spend on a Learning Activity

Total Time	N	%
Less than six months	24	1.7
One to six months	674	47.7
Six months to one year	313	22.1
More than one year	246	17.4
As long as it takes	155	11.0
Other	2	0.1
TOTAL	1414	100.0

Another fundamental factor which affects adults' ability or willingness to engage in continuing education activities is the cost of the activity to the individual. Most of the people interviewed suggested that they would be willing to pay something for study in their area of interest, but the majority expressed the wish that the cost be kept under $50 (See Table 13).

TABLE 13

Adults' Willingness to Pay for Learning Activities

Cost	N	%
No Cost	138	9.8
$1 - $50	611	43.4
$50 - $100	371	26.4
$100+	187	13.3
Depends on Course/ Whatever it Costs	100	7.1
	1407	100.0

When questioned as to their credit needs in relation to their priority learning interest, slightly over half of the adults indicated that they were not interested in studying for credit (See Table 14).

TABLE 14

Adults' Preference for Studying for Credit

	N	%
Credit or Certification	658	46.3
Non-Credit	762	53.7
	1420	100.0

Of those adults who were interested in credit or certification, the type of recognition preferred ranged from a certificate to an advanced degree, with about 37 percent expressing a desire to obtain a two or four year college degree.

TABLE 15

Type of Credit Desired by Adults

	N	%
Certificate	161	27.1
High School Diploma	35	5.9
License	72	12.1
2-Year Degree	123	20.7
4-Year Degree	99	16.7
Advanced Degree	103	17.3
Other	1	0.2
TOTAL	594	100.0

Reasons for Continuing Education Study

In addition to the diversity of subject areas they wish to learn about and the range of conditions under which they would prefer to participate, adults also seek continuing education learning experiences for an assortment of reasons and purposes. In general, the two main reasons or motives for study cited by Central Region adults were personal interest or satisfaction and job-related reasons. These and the other reasons which adults listed are summarized in Table 16.

TABLE 16

Adults' Expressed Reasons for Continuing Education Study in Area of Learning Priority

Reason	N	%
Personal Interest or Satisfaction	739	43.9
Advance in Job	246	14.6
Improve Job Skills	216	12.8
Help Get a Job	165	9.8
Get Away from Routine	59	3.5
Be a Better Citizen	49	2.9
Be a Better Parent	42	2.5
Learn How to Save Money	35	2.1
Professional Certification	28	1.7
Educational Program Requirements	8	0.5
Other	96	5.7
	1683	100.0

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*Some adults specified more than one reason

Barriers to Participation in Continuing Education

Although adults may be interested in continuing education study, there may be obstacles or constraints which would prevent them from taking part in learning activities. During the interview adults were asked what barriers might interfere with their participation in a course or learning activity. The two main barriers cited by adults were those of time and cost. These two factors accounted for approximately one-half of the barriers mentioned by adults. Institutional factors such as entrance requirements, red tape, exams, and preferred courses not being offered were barriers to some 16 percent of the people while about 10 percent listed distance or transportation difficulties as sources of problems.

To obtain an additional perspective on barriers to participation, adults were also asked why other adults they knew might not participate in continuing education activities. Again, time was indicated as the most frequently mentioned barrier with cost ranking in third place. Interestingly, the second major barrier for others was lack of motivation or interest, listed by one of every four interviewed adults. In contrast, fewer than two percent of these adults felt this was a barrier to their own participation. It is likely that this is a response which may be affected by the influence of social desirability; that is, it may be easier to attribute lack of interest to someone else than to admit to it in reference to one's own behavior. Tables 17 and 18 illustrate these differences in perceived barriers to participation. In Table 17, related barriers are grouped together in summary form.

TABLE 17

Perceived Barriers to Participation for Self and Other Adults

Reason	Self (N=1,425) N*	Self (N=1,425) % of Total	Others (N=1,368) N*	Others (N=1,368) % of Total
Lack of Time	811	33.1	739	33.8
Cost	434	17.7	241	11.0
Place	141	5.8	14	0.6
Child Care	69	2.8	44	2.0
Transportation	122	5.0	36	1.7
Age	40	1.6	3	0.1
Entrance Requirements	37	1.5	7	0.3
Courses Not Offered	159	6.5	87	4.0
Exams	16	0.6	5	0.2
Study with Younger People	13	0.5	12	0.5
Lack of Confidence	58	2.4	73	3.4
Social Pressure	14	0.6	19	0.9
Lack of Information	122	5.0	167	7.6
Lack of Motivation/Interest	38	1.5	565	25.8
Distance	118	4.8	27	1.2
Cost in Lost Time	12	0.5	12	0.5
Marriage/Family/Responsibilities	27	1.1	38	1.7
Other	105	4.3	65	3.0
No Barrier	74	3.0	-0-	0.0
	2,452		2,188	

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*Respondents could mention more than one barrier

TABLE 18

Summary of Perceived Barriers to Participation Ranked for Self and Other Adults

Reason	Self (N=1,425) N*	Self (N=1,425) % of Total	Others (N=1,368) N*	Others (N=1,368) % of Total
Lack of Time	811	33.1	739	33.8
Cost - related	446	18.2	703	32.1
Institutional Factors	393	16.0	253	11.6
Distance/Transportation	240	9.8	167	7.6
Personal/Interest Reasons	165	6.7	116	5.3
Lack of Information	122	5.0	82	3.8
Other	105	4.3	65	3.0
No Barrier	74	3.0	-0-	0.0
	2,452		2,188	

Continuing Education Information

Any attempt to meet the expressed learning needs of adults depends heavily upon methods of communicating information about courses, programs and learning activities to the persons who might be interested in participating. About three-quarters of the people surveyed said that they were aware of courses which were available in their area.

TABLE 19

Adults Knowledge of Continuing Education Activities in Own Community

	N	%
Know about what courses are available	1,069	72.5
Do not know what courses are available	406	27.5
	1,475	100.0

When asked how they knew about offering which were available the majority of adults said that their main source of information about continuing education activities was the newspaper. Table 20 shows that one-fourth of the adults obtained their information from printed bulletins or catalogs with the media (radio and television) accounting for about 13 percent of the totals.

TABLE 20

Information Methods Used by Adults Who Know About Courses in Own Area

	N	%
Bulletin	219	23.1
Newspaper	492	52.0
Radio	34	3.6
Television	4	0.4
College Catalog	15	1.6
Media (general)	86	9.1
Other	97	10.2
	947	100.0

Although almost three-fourths of the adults in the sample indicated that they did know about courses or activities in their own communities, approximately 85 percent felt that they would like to be better informed than they were at present (Table 21).

TABLE 21

Responses of Adults to Question, "Would You Like to Be Kept Better Informed?"

	N	%
Yes	1,099	85.5
No	187	14.5
	1,286	100.0

While adults indicated that they would like to be better informed, the sources which they suggested as the best methods for disseminating this information were basically the same as the sources they already used. However, there was a noticeable shift in the emphasis given to media methods, an increase of 16 percent from the methods used by adults to the methods whose use they recommend (See Table 22).

TABLE 22

Adults' Opinion On Best Methods Providers Could Use To Inform Clientele About Continuing Education

Method	N	%
Bulletin	345	27.4
Newspaper	472	37.5
Radio	73	5.8
Television	60	4.8
Media (General)	232	18.4
Mobile Unit	1	0.1
Other	75	6.0
	1,258	100.0

It appears that adults are looking for more information or possibly different kinds of information about continuing education opportunities than they are now finding. In many cases a personal contact is needed to explain or interpret existing information. When adults were asked whom they would consult for information about finding the right course or learning activity for their needs, about 65 percent indicated that they would consult a school counselor or source at the school (See Table 23). While some larger educational institutions do have the personnel available to handle such inquiries, many others may not. Even if personnel and facilities are available, many counselors or advisors are accessible only during day time hours. These circumstances may cause problems for the part-time continuing education student who is employed full time and who requires counseling or interpretation of continuing education information during the evening, when he or she has time to spend on learning activities.

TABLE 23

Adults' Opinions on Information Source They Would Use to Seek Continuing Education Information

Source	N	%
School Source/Counselor	791	65.0
Media	109	9.0
BOCES	73	6.0
Employer	59	4.8
Friends	50	4.1
Govt. Counselor	43	3.5
Other	92	7.6
	1,217	100.0

Continuing Education Participants and Non-Participants

Previous research in continuing education has frequently concentrated on assessing the further learning needs and interest of present students. However, surveys of current participants cannot indicate whether existing continuing education services are serving the educational needs of other adults. In order to identify the characteristics of continuing education participants and non-participants and the differences between these groups, a separate analysis of the interview data was conducted. Examination of differences in learning interests, motives for study and barriers to continuing education participation, yielded valuable information and insights for continuing education planning and programming.

The study sample contained an almost equal number of participants and non-participants as indicated in Table 24. This distinction was based upon whether or not the respondents had ever taken part in a continuing education activity since leaving their last continuous period of formal schooling.

TABLE 24

Adult Participation in Continuing Education in the Central Region

	N	%
Have participated	726	48.3
Have not participated	742	49.4
No answer	34	2.3
	1,502	100.0

Most of the adults (56.3%) who reported that they had been participants in learning activities had engaged in these studies during the past five years. The breakdown of the times when these adults had last been enrolled is shown in Table 25.

TABLE 25

Time of Last Continuing Education Enrollment for Adult Participants (N = 726)

Year(s) of Last Enrollment	N	%
1974	180	24.8
1973	114	15.7
1970-72	115	15.8
1965-69	91	12.5
1960-64	58	8.0
Before 1960	70	9.7
Other	13	1.8
Don't Know/No Answer	85	11.7
	726	100.0

Participants and non-participants were found to differ in their educational backgrounds. In accordance with the findings of previous research, the more formal education a respondent has had, the more likely it is that he or she has been enrolled in a continuing education activity in the past. Table 26 shows that while only 27 percent of those who had not finished high school had participated in some continuing education, 44 percent of those who had completed high school had been enrolled. In addition, of those who had some schooling beyond high school an average of over 60 percent had been involved in continuing education. This might suggest that those who valued education enough to pursue their formal education beyond high school were also more likely to seek out additional training in some form either for personal development or for occupational reasons.

TABLE 26

Relationship of Continuing Education Participation to Educational Attainment of Adults

EDUCATION LEVEL		Participant (N=724)	Non-Participant (N=737)	TOTAL
8 years or less	N	11	31	42
	%	26.2	73.8	100.0
Some High School	N	50	124	174
	%	28.7	71.3	100.0
HS Diploma	N	203	264	472
	%	44.1	55.9	100.0
Bus/Trade School	N	91	49	140
	%	65.0	35.0	100.0
Some College (2 years)	N	152	135	287
	%	53.0	47.0	100.0
College Degree (4 years)	N	95	76	171
	%	55.6	44.4	100.0
Some Grad School	N	53	24	77
	%	68.8	31.2	100.0
Grad School Degree	N	64	34	98
	%	65.5	34.7	100.0

The type of job which a person holds is also significantly related to whether or not he or she has participated in continuing education. Of the six occupational groupings shown in Table 27, farmers and blue collar workers have the lowest proportion of participants (37 and 40 percent respectively) while housewives and white collar workers have the highest proportion of participants in continuing education (50 and 59 percent respectively). A partial explanation for this might lie in the differing amounts of leisure time which the various occupational groups have available to them, and in the attitudes toward education which might be shared by these groups. Since white collar workers tend to have had more educational training beyond high school they may also be more likely to seek out continuing education experiences.

TABLE 27

Comparison of Participants and Non-Participants by Occupational Group

Occupational Group		Participant	Non-Participant	TOTAL
Farm	N	50	86	136
	%	36.8	63.2	100.0
Service	N	67	85	152
	%	44.1	55.9	100.0
Blue Collar	N	108	164	272
	%	39.7	60.3	100.0
White Collar	N	377	262	639
	%	59.0	41.0	100.0
Unemployed	N	90	111	201
	%	44.8	55.2	100.0
Homemakers	N	32	32	64
	%	50.0	50.0	100.0

Participation in continuing education is directly related to income; the greater a respondent's income, the more likely it is that he or she has participated (See Table 28). Those people with higher family incomes may have more disposable income with which to pay for educational activities, while those adults earning less may need to use all available income for necessities. Consequently, adults with lower income levels may have a variety of learning interests, but lack the financial means to pursue them.

TABLE 28

Comparison of Participants and Non-Participants by Income Group

INCOME		Participant (N=666)	Non-Participant (N=674)	TOTAL
$5,000 or less	N	139	188	327
	%	42.5	57.5	100.0
$5,000-$10,000	N	232	269	501
	%	46.3	53.7	100.0
$10,000 or more	N	295	217	512
	%	57.6	42.4	100.0

Another way in which participants and non-participants differ is by age. As Table 29 illustrates, the age group which has most often participated is the 36-50 year olds, with the 18-25 year group having participated the least. However, this apparent lack of participation may be accounted for by several reasons. Many of these young adults who have just finished their formal educations have had less time and opportunity to have taken part in educational activities than older adults. Similarly, they may have less need for immediate activities which relate to job advancement or updating of occupational skills as a function of the recency of their own educational preparation. A further reason relates to the selection of the sample. Since the study was aimed at continuing education activities only, full-time students were not included in the sample. This restriction limited the potential pool of young adults who were eligible to be interviewed since many 18 to 22 year olds are enrolled in two and four-year colleges or in other post-secondary educational programs. Since participation in continuing education has been linked to higher levels of formal education, these young students who are excluded from the present study are likely to be among the most frequent participants in continuing education in the future.

TABLE 29

Comparison of Participants and Non-Participants by Age

AGE		Participant (N=716)	Non-Participant (N=732)	TOTAL
18 - 25	N	91	184	275
	%	33.1	66.9	100.0
26 - 35	N	196	191	387
	%	50.6	49.4	100.0
36 - 50	N	258	204	462
	%	55.8	44.2	100.0
51+	N	171	153	324
	%	52.8	47.2	100.0

The sex of the adult is also an important determinant in whether that individual has previously participated in continuing education. Although in the total sample the men interviewed outnumbered the women, women were more likely to have been previously enrolled in learning activities. Perhaps this is related to such other variables as whether or not the woman is employed outside the home, affecting the time available for learning activities, or whether a significant number of women have experienced interruptions in their educations and are displaying different educational patterns than those of men.

TABLE 30

SEX		Participant (N=700)	Non-Participant (N=709)	TOTAL
Male	N	367	469	836
	%	43.9	56.1	100.0
Female	N	333	240	573
	%	58.1	41.9	100.0

With reference to learning interests, continuing education participants and non-participants show few differences. The ten main learning interest categories are the same for both groups with only minor variations in rank order (See Table 31). However, within subject area categories, some topics are mentioned more frequently by one group than another. For example, the category of "English" which includes English language skills and literature was almost three times as likely to be mentioned by previous participants than by non-participants. The differences for the main interest categories are summarized in Table 32. In this table, only the top fifteen learning interests are presented to eliminate analysis of cell sizes under 10 where the percentage differences may be misleading. In general, participants show a preference for the liberal and fine arts learning topics; non-participants appear to prefer the more utilitarian or job-related subject areas.

TABLE 31

Learning Interests of Continuing Education Participants and Non-Participants

	Participants			Non-Participants			
	N	%	Rank	N	%	Rank	TOTAL
Business	99	16.1	1	120	18.8	2	219
Trades	90	14.6	2	129	20.2	1	219
Social Sciences	76	12.3	3	68	10.7	3	144
Fine Arts	62	10.1	4	41	6.4	6	103
Home Economics, Home/Family Living	47	7.6	5	55	8.6	4	102
Agriculture	40	6.5	6	52	8.2	5	92
Health & Safety	27	4.4	8	28	4.4	7	55
English	39	6.3	7	14	2.2	10	53
Health Professions	25	4.1	9	24	3.8	8.5	49
Physical Education	19	3.1	10	24	3.8	8.5	43
Natural Science	13	2.1	12.5	12	1.9	12	25
Education	14	2.3	11	7	1.1	15.5	21
Engineering	10	1.6	15	11	1.7	13.5	21
Law	10	1.6	15	11	1.7	13.5	21
Foreign Language	13	2.1	12.5	7	1.1	15.5	21
Math	4	0.6	19	13	2.0	11	17
Religion	10	1.6	15	4	0.6	18	14
Public Service	7	1.1	17	4	0.6	18	11
Computer Science	6	1.0	18	3	0.5	20.5	9
Architecture	1	0.2	22	4	0.6	18	5
Communication	1	0.2	22	3	0.5	20.5	4
Degree Studies	1	0.2	22	2	0.3	22	3
Library Science	2	0.3	20	1	0.2	23.5	3
Area Studies	0	0	24	1	0.2	23.5	1
	616	100.0		638	100.0*		1254

*In this table and subsequent tables, percentages are rounded to the first significant digit to the right of the decimal; rounding error accounts for inaccuracies in totals.

TABLE 32

Differences Between Participants and Non-Participants for the Top 15 Learning Interest Categories

	Participants (N=616)		Non-Participants (N=638)			
	N	%	N	%	% Difference	TOTAL
Business	99	45.2	120	54.8	9.6	219
Trades	90	41.1	129	58.9	17.8	219
Social Studies	76	52.8	68	47.2	5.6	144
Fine Arts	62	60.2	41	39.8	20.4	103
Home Economics	47	46.1	55	53.9	7.8	102
Agriculture	40	43.5	52	56.5	13.0	92
Health & Safety	27	49.1	28	50.9	1.8	55
English	39	73.6	14	26.4	47.2	53
Health Professions	25	51.0	24	49.0	2.0	49
Physical Education	19	44.2	24	55.8	11.6	43
Natural Science	13	62.0	12	48.0	4.0	25
Education	14	66.7	7	33.3	33.3	21
Engineering	10	47.6	11	52.4	4.8	21
Law	10	47.6	11	52.4	4.8	21
Foreign Language	13	65.0	7	35.0	30.0	20

CHAPTER V

CONTINUING EDUCATION LEARNING NEEDS: FURTHER ANALYSIS OF DATA

Since a primary goal of these continuing education studies was to contribute basic information about adult learning needs and preferences for planning purposes, special attention was given to identifying relationships among the variables. These relationships provide additional insights into learning interests and enable the identification of areas of special need or special audiences for continuing education services.

Learning Interests and Continuing Education Participation

In the process of data analysis, there was special interest in the identification of systematic relationships between adults' learning interests and other variables. One such possible relationship which was explored was whether adults who had previously studied a subject area in continuing education would express a preference for a learning interest in the same area. In this case, the anticipated relationship did not emerge. The priority learning areas adults were most interested in studying generally were not areas they had already studied, although the interest area was often indirectly related to what had been studied (See Table 33).

Learning Interests and Preferred Learning Sites

A relationship which occurred somewhat as expected was that between priority learning interests and the sites where adults wished to study. Public schools and colleges remained as the most popular learning sites, regardless of learning interests. However, as indicated in Table 34, there is a tendency for adults to choose a learning site which seems appropriate to the subject matter they wish to study. For example, in the trades category there appears a distinct preference for learning at a business site in preference to a college location; in Natural Science and Law, college or university sites were preferred to all other locations, including the public school. Also, few adults selected "home" as a place to pursue interests in the trades or engineering, subject areas which might be more likely to involve more direct or supervised application.

Learning Interest and Preferred Costs

If adults have a fairly clear idea of what they would like to learn and/or where they would like to study, they might also have knowledge and expectations about what it would cost to participate in the offerings that interest them. It was anticipated that adults might be willing to pay more for learning activities which might be job-related or which might provide some type of financial gain. Although within learning categories there are diverse reasons why adults wish to study, there is a trend in this direction. In general, the categories which contain a high proportion of professional skill areas or vocationally-oriented courses (e.g., engineering, natural science, health professions, law) are those for which people are willing to pay higher costs. In contrast, fewer persons indicate a willingness to pay more than $100 for study in home economics (or home and family living 5.0%) or physical education (7.3%) categories which contain fewer job-related learning areas.

This relationship of study for utilitarian reasons and higher course costs emerges more clearly from an examination of Table 36. A greater proportion of the adults interviewed indicated that they were willing to pay higher fees for learning that was job-related or that was related to an educational program than for learning that was purely for personal interests or improvement.

TABLE 33

Comparison of Subject Area of Past Participation with Participants' Priority Learning Interest

		Subject Area of Past Participation								
PRIORITY LEARNING INTEREST	N	Business	Trades	Social Sciences	Fine Arts	Home Eco.	Agriculture	Health & Safety	English	Health Professions
Business	96	44.8	10.4	5.2	7.3	10.4	2.0	1.0	2.0	2.0
Trades	85	10.6	50.6		5.9	1.2	2.4	4.7	2.4	
Social Sciences	64	34.4	12.5	6.3	4.7	6.8	3.1	7.8	3.1	
Fine Arts	63	12.7	12.7	6.3	31.7	7.9	3.2	4.8	4.8	
Home Economics	47	29.8	6.4		8.5	17.0		10.6		
Agriculture	38	13.2		13.2	13.2	7.9	23.7	10.5		
Health & Safety	23	34.8	13.0		4.3	8.7		8.7	8.7	
English	38	39.5	23.7	5.3	5.3	7.9	2.6	2.6	2.6	
Health Professions	25	24.0	4.0	8.0	4.0	4.0		8.0	4.0	28.0
Physical Education	19	10.5	10.5			5.3	5.3	15.8	10.5	
Natural Science	15	13.3	20.0	6.7	6.7				20.0	6.7
Education	14	14.3		14.3	7.1			21.4		7.1
Engineering	10	10.0	50.0							
Foreign Language	13	46.2			15.4					
Law	9	22.2	22.2	22.2	11.1	11.1				
Math	3	66.7								
Religion	9	11.1		11.1	22.2	11.1		11.1	11.1	
Public Service	10	40.0	10.0			10.0			10.0	
Computer Science	4	50.0		50.0						
Architecture	1	100.0								
Communications	1									
Degree Studies	1			100.0						
Library Science	2									
Interdisciplinary Studies	0									
Military Science	0									
Area Studies	0									
TOTAL	590	155	103	25	56	41	19	31	20	14

Physical Education	Natural Science	Education	Engineering	Foreign Language	Law	Math	Religion	Public Service	Computer Science	Architecture	Communications	Degree Studies	Library Science	Interdiscip-linary Studies	Military Science	Area Studies	TOTAL
3.1		4.2	1.0	2.0	1.0		2.0					1.0					100.0
4.7	1.2	4.7		2.4		2.4		1.2	2.4		1.2	1.2		1.2			100.0
4.7		4.7		1.6							1.6	3.1		4.7	1.6		100.0
3.2		3.2		4.8	1.6									3.2			100.0
4.3		2.1		4.3		2.1	6.4		6.4		2.1						100.0
2.6	2.6					5.3	2.6				2.6	2.6					100.0
4.3		4.3		4.3			8.7										100.0
		2.6	2.6			2.6		2.6									100.0
4.0		4.0										4.0		4.0			100.0
26.3		5.3									5.3			5.3			100.0
6.7	6.7	6.7							6.7								100.0
		14.3		7.1		7.1								7.1			100.0
30.0																10.0	100.0
		7.7		30.8													100.0
					11.1												100.0
									33.3								100.0
							22.2										100.0
10.0				10.0				10.0									100.0
																	100.0
																	100.0
											100.0						100.0
																	100.0
												50.0	50.0				100.0
																	0
																	0
																	0
27	3	22	2	17	3	7	10	3	7	1	5	7	1	9	1	1	

TABLE 34

Comparison of the Top 15 Learning Interests with Learning Site Preferred by Adults

		Public School	College	Business Site	Home	Community Site	Other	TOTAL
Business	N	105	67	48	23	4	12	259
	%	40.5	25.9	18.5	8.9	1.6	4.6	100.0
Trades	N	115	34	55	11	8	22	245
	%	46.9	13.9	22.4	4.5	3.3	9.0	100.0
Social Sciences	N	66	46	12	21	14	12	171
	%	38.6	26.9	7.0	12.3	8.2	7.0	100.0
Fine Arts	N	46	31	4	20	7	11	119
	%	38.7	26.0	3.4	16.8	5.9	9.2	100.0
Home Economics Home/Family Living	N	54	14	12	15	8	8	111
	%	48.6	12.6	10.8	13.5	7.2	7.2	100.0
Agriculture Nat. Resources	N	44	18	20	14	6	7	109
	%	40.4	16.5	18.3	12.8	5.5	6.4	100.0
Health/Safety	N	30	15	7	5	3	7	67
	%	44.8	22.4	10.4	7.5	4.5	10.4	100.0
English	N	18	21	6	11	4	2	62
	%	29.0	33.9	9.7	17.7	6.5	3.2	100.0
Health Professions	N	18	19	13	5	4	4	63
	%	28.6	30.2	20.6	7.9	6.3	6.3	100.0
Physical Education	N	17	9	5	3	4	9	47
	%	36.2	19.1	10.6	6.4	8.5	19.1	100.0
Natural Science	N	11	14	2	4	1	1	33
	%	33.3	42.4	6.1	12.1	3.0	2.0	100.0
Education	N	10	10	2	2	1	1	26
	%	38.5	38.5	7.7	7.7	3.8	3.8	100.0
Engineering	N	12	12	3	1	0	1	29
	%	41.4	41.4	10.3	3.4	0	3.4	100.0
Foreign Language	N	10	5	0	4	4	1	24
	%	41.7	20.8	0	16.7	16.7	4.2	100.0
Law	N	5	9	3	2	0	1	20
	%	25.0	45.0	15.0	10.0	0	5.0	100.0
TOTALS	N	561	324	192	141	68	99	1385
	%	40.5	23.4	13.9	10.2	4.9	7.1	100.0

TABLE 35

Comparison of Preferred Costs for Learning Opportunities with Adults' Priority Learning Interest

		Amount Adults Would Pay				
Learning Area		$0-50	$50-100	$100 or More	Other	TOTAL
Business	N	102	65	30	19	216
	%	47.2	30.1	13.9	8.8	100.0
Trades	N	111	63	32	14	220
	%	50.5	28.6	14.5	6.5	100.0
Social Services	N	73	49	12	12	146
	%	50.0	33.6	8.2	8.2	100.0
Fine Arts	N	52	22	17	9	100
	%	52.0	22.0	17.0	9.0	100.0
Home Economics/Home & Family Living	N	77	15	5	3	100
	%	77.0	15.0	5.0	3.0	100.0
Agriculture	N	52	19	6	14	91
	%	57.1	20.9	6.6	15.4	100.0
Health & Safety	N	22	21	7	4	54
	%	40.8	38.9	13.0	7.5	100.0
English	N	32	13	7	0	52
	%	61.6	25.0	13.4	0	100.0
Health Professions	N	20	10	16	3	49
	%	40.8	20.4	32.6	6.1	100.0
Physical Education	N	31	7	3	0	41
	%	75.6	17.1	7.3	0	100.0
Natural Science	N	10	8	6	1	25
	%	40.0	32.0	24.0	4.0	100.0
Education	N	11	3	4	3	21
	%	52.4	14.3	19.1	14.3	100.0
Engineering	N	5	8	6	2	21
	%	23.8	38.1	28.5	9.6	100.0
Law	N	9	5	5	1	20
	%	45.0	25.0	25.0	5.0	100.0
Foreign	N	9	8	2	2	21
	%	42.9	38.1	9.6	9.6	100.0
TOTALS	N	616	316	158	87	1177
	%	52.3	26.8	13.4	7.4	100.0

TABLE 36

Comparison of Preferred Costs for Learning Activities with Adults' Reasons for Study

		Amount Adults Would Pay								
		$0 - 50		$50 - 100		$100 or More		Other		TOTAL
Reasons		N	%	N	%	N	%	N	%	
Help advance in present job	N	79	11.0	71	19.5	42	22.6	25	25.8	217
	%	36.4		32.7		19.4		11.5		100.0
Improve job ability	N	79	11.0	58	15.9	29	15.6	12	12.4	178
	%	44.4		32.6		16.3		6.7		100.0
Help get a job	N	64	8.9	39	10.7	20	9.8	15	15.5	138
	%	46.4		28.3		14.5		10.9		100.0
Certification	N	4	5.6	2	0.5	9	4.8	0	0	15
	%	26.7		13.3		60.0		0		100.0
Personal Satisfaction	N	367	51.1	159	43.7	70	37.6	31	320	627
	%	58.5		25.4		11.2		4.9		100.0
Get Away from Routine	N	20	2.8	6	1.6	2	1.1	5	5.2	33
	%	60.6		18.2		6.1		15.2		100.0
Help be a better citizen	N	21	2.9	7	1.9	3	1.6	1	1.0	32
	%	65.6		21.9		9.4		3.1		100.0
Help be a better parent	N	21	2.9	3	0.8	2	1.1	0	0	26
	%	80.8		11.5		7.7		0		100.0
Other	N	62	8.6	18	4.9	7	3.8	7	7.2	94
	%	66.0		19.1		7.4		7.4		100.0
TOTALS		718	100.0	364	100.0	186	100.0	97	100.0	1368

Learning Interests and Educational Background

Among the adults in the study sample, it was demonstrated that participation in continuing education activities was related to higher levels of education of the individual, supporting the frequently-made assertion that "education is addictive." This observation led to special interest in an examination of whether adults' learning interests differed according to their level of formal education. Also, there was interest in whether certain learning areas might be utilized by those with lower levels of education to acquire or upgrade skills or fill gaps in their educational backgrounds.

Table 37 shows that study in the areas of Engineering and Trades is especially popular among adults with a high school diploma or those who have not completed high school. Business, home economics, social sciences, fine arts and natural sciences appear to be of interest primarily to those with at least a high school education. In some of these areas, particularly the social sciences, fine arts, and natural sciences, a variety of levels of instruction are available. Not surprisingly these latter areas are popular also with adults who have had some graduate study. For those adults with some past-secondary education, foreign languages and law are also chosen more frequently as learning priorities. Thus, it is likely that for some subject areas, previous education does not only dispose individuals to participate in continuing education activities but also operates as a determinant of interest.

Another way of looking at the relationship between adults' education levels and learning interests is to rank learning interests within education level groups. Table 37 shows the proportion of each educational group which was interested in each of the top 15 learning priority categories, and Table 38 illustrates the ranking of the learning categories for each group.

TABLE 37

Comparison of Adults' Educational Backgrounds with the Top 15 Learning Categories

		Less Than H.S.	H.S. Dip-loma	1 - 3 Years College	College Degree	Any Graduate Education	TOTAL
Business	N	22	91	72	19	17	221
	%	10.0	41.2	32.3	8.6	7.6	100.0
Trades	N	52	85	53	15	17	222
	%	23.4	38.3	23.9	6.8	7.6	100.0
Social Sciences	N	9	38	47	23	29	146
	%	6.1	26.0	32.4	15.8	19.9	100.0
Fine Arts	N	5	34	33	11	21	104
	%	4.8	32.7	31.7	10.6	20.2	100.0
Home Economics Home & Family Living	N	15	44	21	14	7	101
	%	14.8	43.6	20.8	13.9	6.9	100.0
Agriculture	N	21	27	24	10	10	92
	%	22.8	29.3	26.1	10.9	10.9	100.0
Health/Safety	N	8	17	19	6	3	53
	%	15.1	32.1	35.8	11.3	5.7	100.0
Health Professions	N	6	14	20	8	1	49
	%	12.6	28.6	40.8	16.3	2.0	100.0
Physical Education	N	10	8	13	6	6	43
	%	23.2	18.6	30.2	14.0	14.0	100.0
Natural Science	N	1	9	4	7	5	26
	%	3.8	34.6	15.4	26.9	19.2	100.0
Education	N	4	3	7	3	5	21
	%	3.8	34.6	15.4	26.9	19.2	100.0
Engineering	N	6	8	5	2	0	21
	%	28.6	38.1	23.8	9.5	0	100.0
Law	N	3	3	5	6	4	21
	%	14.3	14.3	23.8	28.6	19.0	100.0
Foreign Languages	N	2	4	7	3	5	21
	%	9.5	19.0	33.3	14.3	23.8	100.0
TOTAL	N	172	396	351	139	136	1194
	%	14.4	33.2	29.4	11.6	11.4	100.0

TABLE 38

Rank Order of Top 15 Learning Interests Selected by Adults of Different Educational Backgrounds

Learning Interest Area	Less than High School[1]		High School Diploma[2]		Some College[3]		College Degree[4]		Any Graduate Work[5]	
	Rank	%*	Rank	%*	Rank	%*	Rank	%*	Rank	%*
Business	2	12.0	1	21.0	1	19.2	2	13.3	3.5	11.6
Trades	1	28.4	2	20.5	2	14.2	3	10.5	3.5	11.6
Social Sciences	6	4.9	4	9.2	3	2.6	1	16.1	1	19.7
Fine Arts	12	2.7	5	8.2	4	8.8	5	7.7	2	14.3
Home Economics, Home and Family Living	4	8.2	3	10.6	6.5	5.6	4	9.8	6.5	4.8
Agriculture/Natural Resources	3	11.5	6	6.5	5	6.4	6	7.0	5	6.8
Health & Safety	7.5	4.4	7	4.1	9	5.1	10.5	4.2	14	2.0
English	7.5	4.4	9	2.7	6.5	6.6	10.5	4.2	6.5	4.8
Health Professions	10	3.3	8	3.4	8	5.3	7	5.6	20.5	0.7
Physical Education & Recreation	5	5.5	12	1.9	10	3.5	10.5	4.2	8	4.1
Natural Sciences	16	0.5	10	2.2	17	1.1	8	4.9	9.5	3.4
Education	13	2.2	16.5	0.7	12.5	1.9	13.5	2.1	11.5	2.7
Engineering	10	3.3	12	1.9	15	1.3	16	1.4	24	0
Foreign Language	15	1.1	17	1.0	12.5	1.9	13.5	2.1	9.5	3.4
Law	14	1.6	15.5	0.7	15	1.3	10.5	4.2	11.5	2.7

*%based on responses for all learning interest categories for each education level; column totals do not add to 100%

[1] Math tied for 10th rank in this group

[2] Math tied for 12th; computer science 15th

[3] Religion ranked 11th; computer science tied for 15th

[4] Architecture tied for 15th

[5] Religion and public service tied for 14th; health professions tied with math and architecture

Learning Interests and Occupation

Adults' learning interests also vary depending upon their occupation. Table 39 shows for each occupational group, the top fifteen learning interest categories and the percentage of the group interested in each area. The majority of the farm group indicated an interest in trades, agriculture and business. These three categories encompass the interests of 60 percent of the farmers and are among the top three interest categories for blue collar workers. Study in the trades and business is also of primary interest to service occupation workers although this occupational group tends to spread their interests more widely among the various categories. This may reflect the diversity of the types of occupations included in this grouping.

White collar workers prefer business as their chief learning interest, followed by the Social Sciences and the Fine Arts. These second and third-ranked interests differ from the order in which they were chosen by other occupational groups. As shown previously, preference for study in the Social Sciences and other academically-oriented areas is likely to be associated with higher levels of formal education. Since the white collar workers also tended to be the more highly educated group in the sample, their preferences reflect this difference in background characteristics.

The adults in the occupational category of "unemployed" are a heterogeneous group of individuals, all of whom were not regularly employed at the time of the study. Although trades and business interests rank high among their learning preferences as the first and third-ranked categories, the fine-arts is their second choice. Since this grouping includes some persons who are not actively seeking employment (e.g., the retired), their learning interests may reflect study for personal development or avocational reasons.

TABLE 39

Learning Interests of Adults in Various Occupational Groups

Learning Interest Area	Farm N = 126 Rank	%	Service N = 142 Rank	%	Blue Collar N = 243 Rank	%	White Collar N = 537 Rank	%	Unemployed N= 168 Rank	%	Homemakers N = 54 Rank	%
Business	3	18.3	2	12.7	2	16.0	1	22.0	3	10.7	4	11.1
Trades	1	23.0	1	15.5	1	35.8	4	9.7	1	19.6	20.5	0
Social Sciences	4	14.3	4	10.6	4	5.8	2	14.9	5.5	7.7	4	11.1
Fine Arts	7.5	3.2	6.5	8.5	9.5	3.3	3	10.2	2	12.5	4	11.1
Home Economics, Home and Family Living	6	4.0	3	11.3	9.5	3.3	5	8.9	5.5	7.7	1	22.2
Agriculture	2	21.4	6.5	8.5	3	8.6	8	3.5	7	7.1	8.5	3.7
Health & Safety	7.5	3.2	5	9.2	11	2.9	6.5	3.7	9	5.4	13.5	1.9
English	9.5	2.4	8	5.6	7.5	3.7	6.5	3.7	8	6.5	7.5	3.7
Health Professions	11	1.6	10	3.5	16	.8	9	3.2	4	8.9	2	13.0
Physical Education	5	4.8	10	3.5	5.5	4.1	10	2.8	10	3.0	6	5.6
Natural Science	12.5[1]	.8	13[2]	1.4	13	1.6	11	2.6	11.5	2.4	7.5	3.7
Education	19	0	17	.7	13	1.6	14	2.2	11.5	2.4	20.5	0
Engineering	9.5	2.4	17	.7	5.5	4.1	17.5	1.1	17.5	.6	20.5	0
Foreign Language	19	0	17	.7	13	1.6	12	2.4	17.5	.6	7.5	3.7
Law	19	0	10	3.5	15	1.2	14	2.0	17.5	.6	13.5	1.9

[1] Tied with Math for 12th rank

[2] Tied with Religion and Public Service

The last group, homemakers, displays a very different pattern of interest from the preceding occupational groups. Preference for home economics, home and family living study is followed by interest in the health professions, business, social sciences and fine arts. In spite of the fact that the media have made the general public more aware of the problems of sex-role stereotyping in our society, traditional sex-roles are still clearly evident in the choices of homemakers as well as in the choices of males and females in general.

Learning Interests of Men and Women

Table 40 presents the ten most frequently selected learning interests for men and women in the sample. From the percentages of individuals interested in a category, it is evident that study in business is interesting to about the same proportion of women as men although the ranking of the subject area differs. The same is also true of interest in the Social Sciences, English and Health and Safety. However, significant differences occurring along traditional sex-role lines are found in the area of Home Economics, Fine Arts, Trades and Agriculture. Likewise, two subject areas found in the top ten interests differ for men and women. For women, these are the Health Professions and Education; for men, the two areas are Physical Education and Engineering.

Learning Interests for Adults of Different Ages and Income Levels

In addition, learning interests were examined according to the different income levels and also with respect to the age groups of the adults in the sample. However, most of the differences in interest which occured among adults of various incomes and ages were negligible. Tables 41 and 42 illustrate the ten priority learning interests of adults ranked for each age and income sub-category.

Learning Interests and Learning Characteristics of Rural and Urban Adults

As in the case of learning interests and age and income distributions, there were only small differences in the learning preferences of adults living in cities or townships of various population densities. It was anticipated that the rural-urban distribution of population in the eleven-county region would have an influence upon the learning priorities of the residents. This relationship did not occur as expected. Table 43 shows that for the three population groups, the same subject areas were ranked among the ten most frequently mentioned categories with the business, trades and social science areas encompassing almost one-half (43.4 - 48.7%) of the total responses.

Although these population categories did not distinguish the learning priorities of persons living in densely or sparsely populated areas, they were significantly related to other study variables. For example, as described previously, the less densely populated areas contain a larger proportion of older adults as well as smaller numbers of adults with formal education beyond high school. Our study sample was more homogeneous than the region in general in terms of the education of its population (See Chapter II, Table 3). These relationships may have affected the analysis of learning interests and past participation in continuing education. Differences in learning interest might emerge when individual subject titles (and levels) are considered (general subject matter categories were used in this analysis, e.g., business, social sciences, etc.).

Again the similarity in the education levels of the participants in the three groups in the study probably account for these findings. It is important to remember that this sample is "over-educated" compared to census figures for the Region, and that census figures show that rural areas generally have a higher percentage of adults with less than a high school education, and a lower percentage of adults with formal education beyond high school, than is found in the present sample.

Rural residents indicated that they were willing or able to devote less time to continuing education activities. Table 46 shows that 15.8 percent of the residents in areas of 3,000 or fewer people would commit more than four hours per week to a continuing education activity while 31 percent of the adults interviewed from areas of 10,000 or more population would be willing to spend this amount of time. The middle group, living in areas of between 3,000 and 10,000 people were closer to the more rural residents in their expressions of the time they would allocate to study; 19.7 percent of this group would spend five or more hours a week in continuing education activities.

The currency of involvement with continuing education among past and present participants was compared to place of residence. Table 44 shows that of those adults (in the study) who have ever participated in continuing education, the rural residents compose the largest proportion of active participants. Active participants were defined as those who were enrolled in continuing education activities at the time or within the year prior to the study. Of all adults who have participated in continuing education within the 5 years preceding the study, residents in areas with more than 10,000 population have the highest proportion of participatns (65.3%) followed by residents of places of 3,000 or fewer people (63.5%). This observation is underlined by the finding that adults in the three population categories have nearly equal proportions of participants and non-participants (See Table 41).

TABLE 40

Ten Priority Learning Interests in Rank Order of Preference for Men and Women

Women (N = 499)			Men (N = 726)		
Rank		%	Rank		%
1	Business	16.8	1	Trades	25.4
2	Home Economics, Home/Family Living	15.0	2	Business	17.8
3	Fine Arts	13.6	3	Social Sciences	11.4
4	Social Sciences	10.8	4	Agriculture	9.8
5	Health Professions	7.6	5	Fine Arts	5.0
6	Trades	6.4	6	Physical Education	4.3
7	English	5.4	7	Health & Safety	4.0
8	Health & Safety	4.6	8	English	3.4
9	Agriculture	3.4	9	Home Economics, Home/Family Living	3.3
10	Education	2.8	10	Engineering	2.9

TABLE 41

Ten Priority Learning Interests (in Rank Order of Preference) of Adults of Different Age Groups

Age 18-25 N = 252			Age 26-30 N = 357			Age 36-50 N = 394			Age 51+ N = 250		
Rank		%	Rank		%	Rank		%	Rank		%
1	Trades	18.3	1	Trades	21.3	1	Business	20.6	1	Business	18.0
2	Social Science	11.9	2	Business	18.5	2	Trades	15.2	2	Trades	14.8
3	Business	10.3	3	Home Economics	9.0	3	Social Science	14.5	3	Fine Arts	13.2
4	Fine Arts	8.7	4.5	Agriculture	7.6	4	Home Economics	7.4	4	Social Science	12.4
5	Agriculture	8.3	4.5	Social Science	7.6	5	Fine Arts	5.8	5	Agriculture	8.4
6	Home Economics	7.9	6	Fine Arts	7.3	6	Agriculture	5.6	6	Home Economics	7.2
7	Health Professions	6.0	7	Health Professions	5.0	7	Health & Safety	5.3	7	Physical Education	5.2
8.5	English	5.2	8	Health & Safety	4.8	8	English	4.8	8.5	English	4.4
8.5	Physical Education	5.2	9	English	2.8	9	Health Professions	3.3	8.5	Foreign Languages	4.4
10	Health & Safety	4.0	10	Engineering	2.5	10.5	Physical Education	2.5	10	Health & Safety	2.8
						10.5	Natural Science	2.5			

TABLE 42

Ten Priority Learning Interests (in Rank Order of Preference) of Adults of Different Income Levels

	$5000 or Less N = 283			$5000 - $10,000 N = 447			$10,000 or More N = 435	
Rank		%	Rank		%	Rank		%
1	Business	16.3	1	Trades	20.4	1	Business	20.5
2	Trades	14.5	2	Business	17.0	2	Trades	16.8
3	Fine Arts	11.7	3	Social Science	12.1	3	Social Science	13.1
4	Social Science	8.8	4	Agriculture	8.9	4	Fine Arts	7.1
5	Home Economics	8.5	5	Home Economics	8.1	5	Home Economics	5.7
6	Agriculture	7.4	6	Fine Arts	6.0	6	Agriculture	5.1
7	Health Prof.	6.7	7	English	4.3	7	English	3.9
8	Health & Safety	6.4	8.5	Health & Safety	3.6	8	Health & Safety	3.2
9	English	5.3	8.5	Physical Educ.	3.6	9.5	Health Prof.	3.0
10	Physical Educ.	2.8	10	Health Prof.	2.9	9.5	Physical Educ.	3.0

TABLE 43

Ten Priority Learning Interests in Rank Order of Preference of Adults Living in Areas of Different Total Populations

Population of Place of Residence

	3000 or Fewer N = 450			3000-10,000 N = 410			10,000 or More N = 412	
Rank		%	Rank		%	Rank		%
1	Business	19.3	1	Trades	22.4	1	Business	16.5
2	Trades	16.2	2	Business	16.3	2	Trades	13.8
3	Social Science	11.6	3	Social Science	10.0	3	Social Science	13.1
4	Home Economics	9.8	4	Agriculture	9.3	4	Fine Arts	9.2
5	Fine Arts	8.7	5	Fine Arts	7.1	5	Home Economics	8.0
6	Agriculture	7.8	6	Home Economics	6.1	6	English	6.8
7	Health Professions	4.7	7	Health & Safety	4.4	7	Health & Safety	5.8
8	Physical Education	3.6	8	Health Professions	4.1	8	Agriculture	4.9
9	Health & Safety	2.9	9	Physical Education	3.4	9	Physical Education	3.4
10	English	2.7	10	English	3.2	10.5	Health Professions	2.7
						10.5	Natural Science	2.7

TABLE 44

Time of Most Recent Participation in Continuing Education Activities by Adults Living in Areas of Different Total Populations

Years Since Most Recent Participation		Population of Place of Residence 3,000 or Fewer N	%	3,000 - 10,000 N	%	10,000 or More N	%	TOTAL
0 (this year)	N	86	34.8	42	23.0	52	24.8	180
	%	47.8		23.3		28.9		100.0
1 - 4 years	N	71	28.7	71	36.8	85	40.5	227
	%	31.3		31.3		37.4		100.0
5 - 9 years	N	39	15.8	29	15.8	24	11.4	92
	%	42.4		31.5		26.1		100.0
10 or more years	N	49	19.8	33	18.0	46	21.9	128
	%	38.3		25.8		35.9		100.0
Other	N	2	.01	8	4.4	3	1.4	13
	%	15.3		61.5		23.1		100.0
TOTALS		247	100.0	183	100.0	210	100.0	640

TABLE 45

Adults' Participation in Continuing Education Activities

Population		Have Participated	Never Participated	Totals
Less than 3,000	N	255	275	530
	%	48.1	51.9	100.0
3,000 - 10,000	N	215	244	459
	%	46.8	53.2	100.0
More than 10,000	N	255	223	478
	%	53.3	46.7	100.0
TOTALS		725	742	1467

TABLE 46

Hours Per Week Which Adults Living in Areas of Different Total Populations Would Spend on Continuing Education Activities

Population of Place of Residence

Hours Per Week		3,000 or fewer		3,000 - 10,000		10,000 or More		TOTALS
		N	%	N	%	N	%	
0 to 2 hours	N	154	38.0	143	33.6	122	26.5	419
	%	36.8		34.1		29.1		100.0
3 to 4 hours	N	177	46.2	100	46.7	196	42.5	582
	%	32.1		34.2		33.7		100.0
5 to 6 hours	N	29	7.2	40	9.4	48	10.4	117
	%	24.8		34.2		41.0		100.0
7 or more hours	N	35	8.6	44	10.3	95	20.6	174
	%	20.1		25.3		54.6		100.0
TOTALS		405	100.0	426	100.0	461	100.0	1292

Other differences among individuals living in areas of varying populations are found in their expressed choices of a location for study. As Table 47 shows, "public school", the most frequently mentioned location of the total sample, was favored by more than half of the respondents from the two lower population areas. College or university locations were mentioned only half as often as the public school site for both of these groups. By contrast, the more urban residents favored public school and college locations almost equally, each of these venues being selected by approximately 30 percent of the adults. One other figure stands out in this choice of locations. "Home" as a location for study is only half as popular with adults who live in cities or townships of 3,000 to 10,000 people. However, in general, adults' preferences for the traditionally accepted educational institutions as learning sites held true regardless of the size of the area where they lived with approximately 60 to 70 percent of the adults in each category choosing such locations.

An analysis was made of the barriers to adults' participation in continuing education activities for rural, village, and urban residents. Table 48 lists the barriers mentioned by all adults in the study, and gives the ranking of each within each of the population groups.

TABLE 47

Expressed Preferences of Adults Living in Areas of Different Total Populations for Continuing Education Learning Settings

Population of Place of Residence

Setting		3,000 or fewer		3,000 - 10,000		10,000 or more		TOTALS
		N	%	N	%	N	%	
Public School	N	240	41.1	248	48.2	176	31.8	64
	%	36.1		37.3		26.5		100.0
College	N	113	19.3	113	21.9	165	29.8	391
	%	28.9		28.9		42.2		100.0
Business Site	N	66	11.3	72	14.0	80	14.4	218
	%	30.3		33.0		36.7		100.0
Home	N	75	12.8	34	6.6	67	12.1	176
	%	42.6		19.3		38.1		100.0
All Other	N	90	15.4	48	9.3	66	11.9	204
	%	44.1		23.5		32.4		100.0
TOTALS		584	100.0	515	100.0	554	100.0	1653

*Some adults specified more than one setting.

TABLE 48

Perceived Barriers to Learning for Adults Living in Areas of Different Total Populations

	Population of Place of Residence					
	3,000 or fewer		3,000 - 10,000		10,000 or more	
Reasons	Rank	%	Rank	%	Rank	%
Lack of time	1	34.8	1	37.4	1	37.2
Cost	2	17.1	2	15.8	2	22.5
Courses not offered	5	6.2	3	8.3	3	5.0
Distance	3	8.3	6	3.8	12.5	2.0
Place	4	3.7	4	6.3	4	4.7
Lack of Transportation	6	4.4	5	5.6	5	3.9
Lack of Information	4	6.4	7.5	3.3	6	3.7
No Barrier	8.5	3.5	9	3.0	8	2.9
Other	8.5	3.5	10	2.7	9	2.8
Child Care	10	2.4	7.5	3.3	10.5	2.2
Lack of Confidence	12	1.8	12	1.7	7	3.0
Age	13	1.5	14	1.2	10.5	2.2
Lack of Motivation	11	2.1	15	0.9	14.5	1.4
Red Tape	15	1.2	11	2.4	17	0.7
Entrance Requirements	14	1.4	13	1.4	14.5	1.4
Marriage & Family Responsibilities	19.5	0.1	16	0.8	12.5	2.0
Study with younger people	16	0.7	17.5	0.6	20	0.4
Social Pressures	17.5	0.4	19.5	0.4	16	0.9
Cost in Lost Time	17.5	0.4	7.5	0.6	18.5	0.6
Exams	19.5	0.1	19.5	0.4	18.5	0.6

As Table 49 shows, when the related factors in Table 48 are combined, lack of time and cost-related barriers are important to all residents. Distance factors are somewhat more important to residents of more rural areas; institutional factors are cited more often by residents of areas of 3,000 to 10,000 people and lack of information is slightly more important to rural residents. Home and family responsibilities and personal reasons are most significant to urban residents.

TABLE 49

Summary of Perceived Barriers to Learning for Adults Living in Areas of Different Total Populations

	Population of Place of Residence		
Reasons	3,000 or fewer	3,000 - 10,000	10,000 or more
Time-related	34.8	37.4	37.2
Cost-related	17.5	16.4	23.1
Distance/Transportation	16.4	15.7	10.6
Institutional Factors	8.9	12.5	7.7
Personal/Motivational Factors	6.5	4.8	8.3
Lack of Information	6.4	3.3	3.7
Home/Family Related	2.5	4.1	4.2
Other	3.5	2.7	2.8
No Barrier	3.5	3.0	2.9

Barriers to Learning: Other Relationships

Although cost and time rank as the two major barriers to learning for adults in general, these and other obstacles vary in their degree of importance according to the characteristics of the responsents in the study. A more detailed examination of barriers to learning was carried out in order to discover if the relative influence of an individual barrier differs with the adult's sex, occuptional group, age, education, income and previous participation in continuing education. Tables 50 through 60 illustrate the relationships of these variables to the perceived learning barriers of adults.

Table 50 shows that proportionately more men cited lack of time as a barrier than the women in the sample although it is the top-ranked barrier for both sexes. When the barriers were grouped according to similarities, cost-related factors ranked second for women compared to the males' choice of institutional barriers for the second position ranking. In addition, the women were somewhat more likely to cite distance or transportation problems and family and home responsibilities as barriers than were the men interviewed.

Differences in barriers to learning are not distinguished by previous participation in continuing education activities. Table 52 illustrates that there is little difference in perceived barriers between participants and non-participants, neither do non-participants significantly differ on the number of barriers they cite (a mean of 1.71 barriers per respondent compared to 1.73 for participants). Clearly, then, other characteristics of the individual are more effective in discriminating among possible learning barriers than whether the individual has already taken part in continuing education activities.

TABLE 50

Perceived Barriers to Learning for Men and Women

Reasons	Men (N=812)		Women (N=559)	
	N	%	N	%
Lack of Time	489	37.1	287	27.4
Cost	206	15.6	214	20.4
Place	81	6.1	53	5.1
No Child Care	14	1.1	52	5.0
Lack of Transportation	39	3.0	81	7.7
Red Tape	30	2.3	8	.8
Age	25	1.9	14	1.3
Entrance Requirements	14	1.1	21	2.0
Courses Not Available	95	7.2	56	5.3
Exams	11	.8	4	.4
Studying with Younger Persons	8	.6	5	.5
Lack of Confidence	20	1.5	35	3.3
Social Pressure	9	.7	5	.5
Lack of Information	71	5.4	48	4.6
Lack of Motivation	21	1.6	17	1.6
Distance	61	4.6	55	5.3
Cost in Lost Time	9	.7	3	.3
Marriage/Family Responsibilities	14	1.1	13	1.2
Other	59	4.5	45	4.3
No Barrier	43	3.3	31	3.0
TOTAL	1,319	100.0	1,047	100.0
Mean number of reasons/respondent	1.62		1.87	

TABLE 51

Summary of Perceived Barriers to Learning for Men and Women

Reasons	Men (N=812)		Women (N=559)	
	N	%	N	%
Lack of Time	489	37.1	287	27.4
Institutional Factors	231	17.5	142	13.5
Cost-Related	215	16.3	217	20.7
Distance/Transportation	100	7.6	136	13.0
Personal/Motivational Factors	83	6.3	76	7.3
Lack of Information	71	5.4	48	4.6
Family/Home Related	28	2.1	65	6.2
Other	59	4.5	45	4.3
No Barrier	43	3.3	31	3.0
TOTAL	1,319	100.0	1,047	100.0

TABLE 52

Perceived Barriers to Learning for Participants and Non-Participants

Reasons	Participants (N = 694) N	%	Non-Participants (N = 715) N	%
Lack of Time	393	32.6	411	33.6
Cost	197	16.4	230	18.8
Place	79	6.6	60	4.9
No Child Care	35	2.9	33	2.7
Lack of Transportation	67	5.6	55	4.5
Red Tape	13	1.1	26	2.1
Age	12	1.0	28	2.3
Entrance Requirements	19	1.6	18	1.5
Courses not available	83	6.9	76	6.2
Exams	8	.7	9	.7
Studying with Younger Persons	4	.3	9	.7
Lack of Confidence	26	2.2	31	2.5
Social Pressure	6	.5	8	.7
Lack of Information	61	5.1	60	4.9
Lack of Motivation	12	1.0	26	2.1
Distance	64	5.3	53	4.3
Cost in Lost Time	9	.7	3	.2
Marriage/Family Responsibilities	18	1.5	9	.7
Other	48	4.0	56	4.6
No Barrier	50	4.2	24	2.0
TOTAL	1,204	100.0	1,224	100.0
Mean number of reasons/respondent	1.73		1.71	

Table 53 shows barriers to learning categorized by four age groups in the adult sample. Once again, although time and cost remain as the two chief barriers, there are differences in their relative importance as barriers among the various age groups. For example, cost is more often cited as a barrier for those in the 18 to 25 age group than for older adults. Lack of time appears to grow increasingly more influential as a barrier up to about age 50 when some decrease is noted. These responses may reflect the increasing home and family responsibilities during middle life for the majority of adults; more time may become available as children leave the home or with the advent of retirement.

Even more pronounced differences are found among the responses of adults in various occupationalgroups. (See Tables 55 and 56). As a group, the unemployed cited more barriers per person than any other category with each adult averaging almost two responses. In contrast, although farmers and farm workers produced the fewest mentions of barriers by each adult (a mean response rate of 1.51 respones per person), they were clear in their selection of lack of time as the main barrier to learning. Fifty percent of the farmers and farm workers' responses fell in this category while only 18 percent of the unemployed and 21 percent of the homemakers' replies emphasized this barrier.

Also, cost and lack of time appeared to be equally important barriers to homemakers while cost was mentioned most often by the unemployed. These two categories, the homemakers and the unemployed, were further distinguished from the other groups by the frequency with which they mentioned distance and transportation problems as barriers to continuing their educations.

TABLE 53

Perceived Barriers to Learning for Adults in Different Age Groups

Reasons	Age 18 - 25 (N=269) N	%	Age 25 - 35 (N=379) N	%	Age 36 - 50 (N=451) N	%	Age 50+ (N=309) N	%
Lack of Time	135	27.6	214	31.0	287	37.8	164	33.5
Cost	114	23.3	144	20.9	108	14.2	63	12.9
Place	24	4.9	40	5.8	51	6.7	26	5.3
No Child Care	24	4.9	29	4.2	12	1.6	3	.6
Lack of Transportation	40	8.2	34	4.9	28	3.7	18	3.7
Red Tape	15	3.1	8	1.2	11	1.4	6	1.2
Age	3	.6	0	0	8	1.1	31	6.3
Entrance Requirements	5	1.0	14	2.0	13	1.7	5	1.0
Courses not Available	24	4.9	48	7.0	54	7.1	30	6.1
Exams	7	1.4	3	.4	5	.7	1	.2
Studying with Younger Persons	0	0	2	.3	5	.7	6	1.2
Lack of Confidence	15	3.1	16	2.3	22	2.9	5	1.0
Social Pressure	2	.4	5	.7	6	.8	1	.2
Lack of Information	27	5.5	35	5.1	29	3.8	30	6.1
Lack of Motivation	6	1.2	9	1.3	9	1.2	14	2.9
Distance	17	3.5	32	4.6	42	5.5	27	5.5
Cost in Lost Time	2	.4	2	.3	5	.7	3	.6
Marriage/Family Responsibilities	3	.6	7	1.0	14	1.8	3	.6
Other	19	3.9	28	4.1	28	3.7	28	5.7
No Barrier	7	1.4	20	2.9	22	2.9	25	5.1
TOTAL	489	100.0	690	100.0	759	100.0	489	100.0
Mean number of reasons per respondent	1.82		1.82		1.68		1.58	

TABLE 54

Summary of Perceived Barriers to Learning for Adults in Different Age Groups

Reasons	Age 18 - 25 (N=269) N	%	Age 26 - 35 (N=379) N	%	Age 36 - 50 (N=451) N	%	Age 51+ (N=309) N	%
Lack of Time	135	27.6	214	31.0	287	37.8	164	33.5
Cost-Related	116	23.7	146	21.2	113	14.9	66	13.5
Institutional Factors	75	15.3	113	16.4	134	17.7	68	13.9
Distance/Transportation	57	11.7	66	9.6	70	9.2	45	9.2
Personal/Motivational Factors	26	5.5	35	5.1	29	3.8	30	6.1
Lack of Information	27	5.5	35	5.1	29	3.8	30	6.1
Family/Home Related	27	5.5	36	5.2	26	3.4	6	1.2
Other	19	3.9	28	4.1	28	3.7	28	5.7
No Barrier	7	1.4	20	2.9	22	2.9	25	5.1
TOTAL	489	100.0	690	100.0	759	100.0	489	100.0

TABLE 55

Perceived Barriers to Learning for Different Occupational Groups

	Farm (N=133)		Service (N[illegible]47)		Blue Collar (N=267)		White Collar (N=619)		Unemployed (N=194)		Homemakers (N=61)	
	N	%	N	%	N	%	N	%	N	%	N	%
Cost	19	9.4	47	20.4	84	18.3	167	15.8	92	23.8	23	21.1
Lack of Time	101	50.2	74	32.2	146	31.8	395	37.3	70	18.1	23	21.1
Place	11	5.5	11	4.8	21	4.6	76	7.2	16	4.1	6	5.5
No Child Care	1	.5	7	3.0	10	2.2	28	2.6	11	2.8	12	11.0
Lack of Trans.	8	4.0	10	4.3	13	2.8	47	4.4	30	7.8	13	11.9
Red Tape	7	3.5	5	2.2	9	2.0	9	.9	8	2.1	1	.9
Age	8	4.0	6	2.6	3	.6	13	1.2	11	2.8	1	.9
Entrance Require.	2	1.0	2	.9	9	2.0	16	1.5	6	1.6	2	1.8
Courses not avail.	12	6.0	21	9.1	37	8.1	63	6.0	23	5.9	3	2.8
Exams	0	0	0	0	7	1.5	6	.6	2	.5	0	0
Studying with younger persons	0	0	2	.9	3	.6	3	.3	4	1.0	1	.9
Lack of Confid.	3	1.5	11	4.8	5	1.1	20	1.9	12	3.1	7	6.4
Social Pressure	0	0	2	.9	2	.4	8	.8	1	.3	1	.9
Lack of Infor.	7	3.5	8	3.5	35	7.6	44	4.2	25	6.4	3	2.8
Other	10	5.0	3	1.3	32	7.0	36	3.4	19	4.9	4	3.7
Lack of Motiv.	2	1.0	4	1.7	7	1.5	17	1.6	6	1.6	2	1.8
Distance	4	2.0	4	1.7	21	4.6	57	5.4	29	7.5	3	2.8
Cost in Lost Time	2	1.0	2	.9	1	.2	6	.6	1	.3	0	0
Marriage/ Family	2	1.0	1	.4	3	.6	16	1.5	4	1.0	1	.9
No Barrier	2	1.0	10	4.3	11	2.4	31	2.9	17	4.4	3	2.8
TOTAL	201	100.0	230	100.0	459	100.0	1,058	100.0	387	100.0	190	100.0
Mean number of reasons/ respondents	1.51		1.56		1.72		1.71		1.99		1.79	

TABLE 56

Summary of Perceived Barriers to Learning for Different Occupational Groups

	Farm		Service		Blue Collar		White Collar		Unemployed		Homemakers	
	N	%	N	%	N	%	N	%	N	%	N	%
Lack of Time	101	50.2	74	32.2	146	31.8	395	37.3	70	18.1	23	21.1
Cost-Related	21	10.4	49	21.3	85	18.5	173	16.4	93	24.0	23	21.1
Institutional Factors	32	15.9	39	17.0	83	18.1	170	16.1	55	14.2	12	11.0
Distance/Transportation	12	6.0	14	6.1	34	7.4	104	9.8	59	15.2	16	14.7
Personal/Motivation Factors	13	6.5	25	10.9	20	4.4	61	5.8	34	8.8	12	11.0
Lack of Information	7	3.5	8	3.5	35	7.6	44	4.2	25	6.4	3	2.8
Family/Home Related	3	1.5	8	3.5	13	2.8	44	4.2	15	3.9	13	11.9
Other	10	5.0	3	1.3	32	7.0	36	3.4	19	4.9	4	3.7
No Barrier	2	1.0	10	4.3	11	2.4	31	2.9	17	4.4	3	2.8
TOTALS	201	100.0	230	100.0	459	100.0	1,058	100.0	387	100.0	109	100.0

Table 57 indicates that the amount of previous formal education adults have experienced affects the frequency with which they specify various barriers to learning. Lack of time is positively related to higher amounts of previous education with those adults who have graduated from college or who have some graduate education almost twice as likely to cite lack of time as an obstacle as those with an eighth grade education or below. In contrast, those adults with lower amounts of formal education more frequently name cost as a barrier than do adults in the other educational groups. Likewise, there is a trend for less previous education to be related to lack of information about continuing education activities. Only 2.9 percent of the responses of those with graduate education cite this as a barrier while 7.4 percent of the total responses from the lowest educational category indicate that lack of information may prevent these adults from participating.

An examination of barriers by income levels shows differences in the emphasis given to cost and time by the adults interviewed. Although time is still ranked as the chief barrier to adult participation, adults with yearly incomes of $10,000 or above are almost twice as likely to name this as an obstacle than are the adults in the lowest income category. As might be expected, for adults with incomes of $5,000 or less per year, the cost of learning activities is proportionately more important than for the other adults to cite transportation problems and distance as a barrier.

TABLE 57

Perceived Barriers to Learning for Adults with Different Educational Backgrounds

Reasons	8 or Less (N=41) N	8 or Less (N=41) %	Some HS (N=171) N	Some HS (N=171) %	HS Dip. (N=452) N	HS Dip. (N=452) %	Some Post-Sec (N=420) N	Some Post-Sec (N=420) %	College Degree (N=165) N	College Degree (N=165) %	Graduate Work (N=169) N	Graduate Work (N=169) %
Lack of Time	17	21.0	79	27.0	256	33.1	236	32.2	111	39.8	108	38.6
Cost	18	22.2	58	19.8	138	17.8	131	7.9	45	16.1	40	14.3
Place	1	1.2	6	2.0	45	5.8	43	5.9	26	9.3	19	6.8
No Child Care	3	3.7	6	2.0	23	3.0	25	3.4	7	2.5	5	1.8
Lack of Transportation	6	7.4	16	5.5	42	5.4	41	5.6	8	2.9	9	3.2
Red Tape	1	1.2	5	1.7	9	1.2	13	1.8	5	1.8	6	2.1
Age	4	4.9	9	3.1	15	1.9	8	1.1	3	1.1	2	.7
Entrance Requirements	1	1.2	5	1.7	15	1.9	12	1.6	3	1.1	1	.4
Courses Not Available	6	7.4	20	6.8	44	5.7	57	7.8	13	4.7	19	6.8
Exams	0	0	2	.7	3	.4	9	1.2	2	.7	2	.7
Studying with Younger Persons	0	0	6	2.0	2	.3	2	.3	1	.4	2	.7
Lack of Confidence	5	6.2	12	4.1	17	2.2	17	2.3	4	1.4	3	1.1
Social Pressure	0	0	2	.7	4	.5	5	.7	2	.7	1	.4
Lack of Information	6	7.4	19	6.5	45	5.8	33	4.5	11	3.9	8	2.9
Lack of Motivation	3	3.7	6	2.0	14	1.8	7	1.0	0	0	8	2.9
Distance	5	6.2	9	3.1	38	4.9	26	3.5	23	8.2	17	6.1
Cost in Lost Time	0	0	1	.3	6	.8	2	.3	1	.4	2	.7
Marriage/Family Responsiblities	0	0	3	1.0	8	1.0	8	1.1	4	1.4	4	1.4
Other	3	3.7	22	7.5	27	3.5	35	4.8	3	1.1	14	5.0
No Barrier	2	2.5	7	2.4	23	3.0	23	3.1	7	2.5	12	4.3
TOTAL	81	100.0	293	100.0	774	100.0	773	100.0	279	100.0	280	100.0
Mean number of reasons/respondent	1.98		1.71		1.71		1.75		1.69		1.66	

TABLE 58

Summary of Perceived Barriers to Learning for Adults with Different Educational Backgrounds

Reasons	8 or Less (N=41)		Some HS (N=171)		HS Dip. (N=452)		Some Post-Sec (N=420)		College Degree (N=165)		Graduate Work (N=169)	
	N	%	N	%	N	%	N	%	N	%	N	%
Lack of Time	17	21.0	79	27.0	256	33.1	236	32.2	111	39.8	108	38.6
Cost-related	18	22.2	59	20.1	144	18.6	133	18.1	46	16.5	42	15.0
Institutional Factors	9	11.1	38	13.0	116	15.0	134	18.3	49	17.6	45	16.1
Transportation/Distance	11	13.6	25	8.5	80	10.3	67	9.1	31	11.1	26	9.3
Personal/Motivation Factors	12	14.8	35	11.9	52	6.7	39	5.3	10	3.6	16	5.7
Lack of Information	6	7.4	19	6.5	45	5.8	33	4.5	11	3.9	8	2.9
Family/Home Related	3	3.7	9	3.1	31	4.0	33	4.5	11	3.9	9	3.2
Other	3	3.7	22	7.5	27	3.5	35	4.8	3	1.1	14	5.0
No Barrier	2	2.5	7	2.4	23	3.0	23	3.1	7	2.5	12	4.3
TOTAL	81	100.0	293	100.0	774	100.0	733	100.0	279	100.0	280	100.0

TABLE 59

Perceived Barriers to Learning by Income Level

Reason	$5,000 or Less (N=323) N	$5,000 or Less (N=323) %	$5,000-$10,000 (N=497) N	$5,000-$10,000 (N=497) %	$10,000 + (N=483) N	$10,000 + (N=483) %
Lack of Time	141	23.7	289	33.6	317	40.3
Cost	143	24.1	167	19.4	90	11.5
Place	24	4.0	56	6.5	49	6.2
No Child Care	25	4.2	23	2.7	14	1.8
Lack of Transportation	53	8.9	40	4.7	16	2.0
Red Tape	14	2.4	13	1.5	9	1.1
Age	14	2.4	14	1.6	9	1.1
Entrance Requirements	13	2.2	16	1.9	4	.5
Courses Not Available	27	4.5	62	7.2	52	6.6
Exams	3	.5	7	.8	6	.8
Studying with Younger Persons	5	.8	3	.3	4	.5
Lack of Confidence	22	3.7	13	1.5	12	1.5
Social Pressure	4	.7	4	.5	6	.8
Lack of Information	28	4.7	39	4.5	45	5.7
Lack of Motivation	9	1.5	12	1.4	14	1.8
Distance	23	3.9	31	3.6	55	7.0
Cost in Lost Time	5	.8	3	.3	4	.5
Marriage/Family Responsibilities	4	.7	9	1.0	11	1.4
Other	23	3.9	32	3.7	37	4.7
No Barrier	14	2.4	27	3.1	32	4.1
TOTAL	594	100.0	860	100.0	786	100.0
Mean number of reasons/respondent	1.84		1.73		1.63	

TABLE 60

Summary of Perceived Barriers to Learning by Income Level

Reason	$5,000 or Less (N=323)		$5,000-$10,000 (N=497)		$10,000 + (N=483)	
	N	%	N	%	N	%
Lack of Time	141	23.7	289	33.6	317	40.3
Cost-related	148	24.9	170	19.8	94	12.0
Institutional Factors	81	13.6	154	17.9	120	15.3
Transportation/ Distance	76	12.8	71	8.3	71	9.0
Personal/ Motivation Factors	54	9.1	46	5.3	45	5.7
Lack of Information	28	4.7	39	4.5	45	5.7
Family/Home Related	29	4.9	32	3.7	25	3.2
Other	23	3.9	32	3.7	37	4.7
No Barrier	14	2.4	27	3.1	32	4.1
TOTAL	594	100.0	860	100.0	786	100.0

CHAPTER VI

LEARNING OPPORTUNITIES IN THE CENTRAL REGION

The major goal of the inventory of learning resources was to attempt to answer the question, How are providers of continuing education services now trying to meet adult needs? Providers in the Central Region were identified and surveyed about the content and scope of learning activities they offer for adults. This effort encompassed a wide variety of providers including colleges and universities, secondary schools and BOCES, professional and proprietary schools as well as business, industry and other employers and voluntary organizations and other agencies (e.g., social, cultural), the Cooperative Extension service, government agencies and libraries. Table 61 shows the number of insititutions, organizations and agencies surveyed in each main category.

TABLE 61

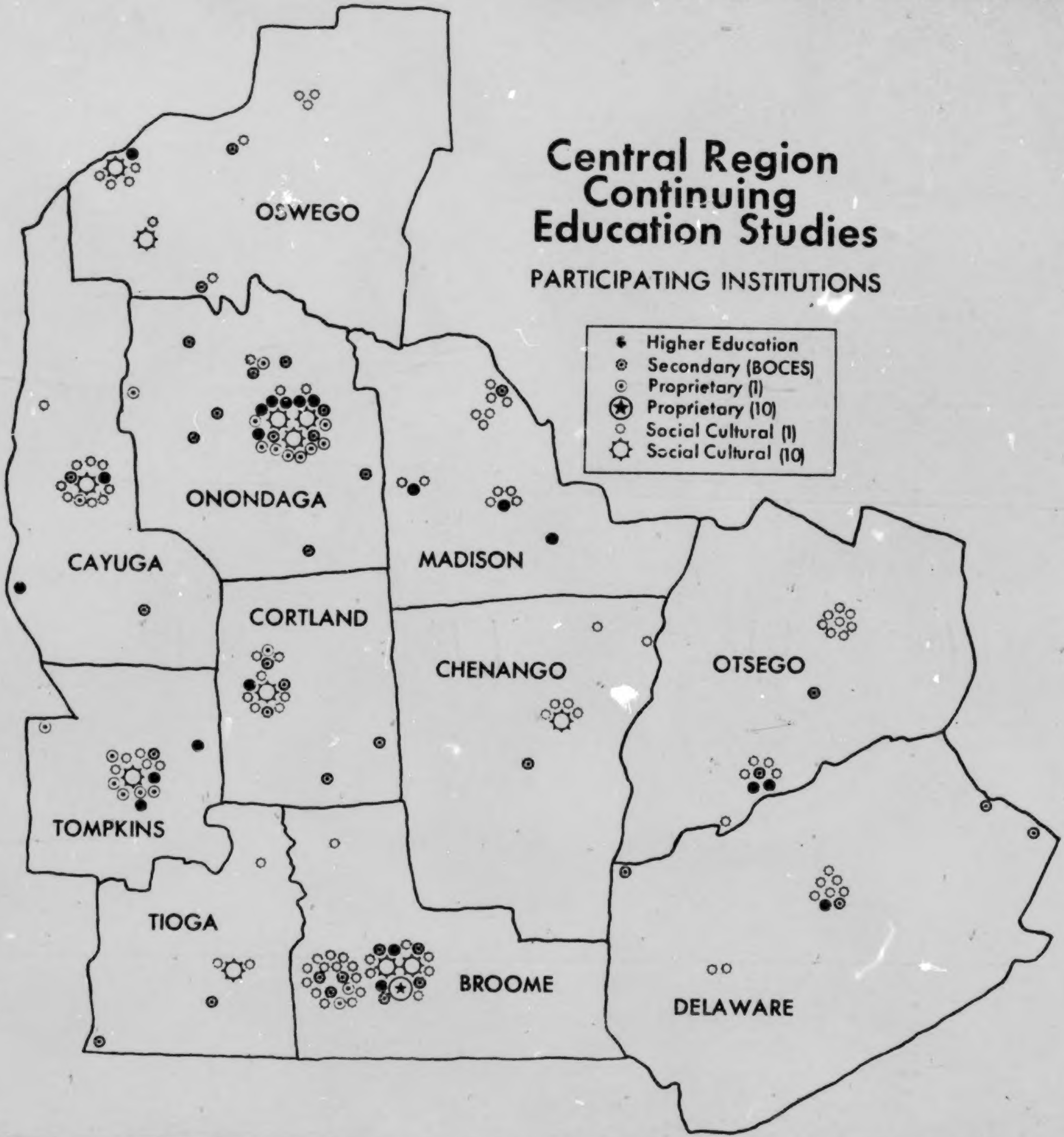
Organizations and Agencies Surveyed

Types	N	%
Higher Education	22	5.3
Secondary/BOCES	38	9.2
Social/Cultural/Professional	226	54.5
Business/Industry	91	21.9
Proprietary	38	9.1
	415	100.0

These institutions, organizations and agencies vary considerably in the characteristics of their continuing education activities. For some the education of adults is a primary activity; for others continuing education is a secondary or minor part of the agency's mission. Although some of the providers surveyed are statewide or national organizations,

Central Region Continuing Education Studies

PARTICIPATING INSTITUTIONS


● Higher Education
⊚ Secondary (BOCES)
⊙ Proprietary (1)
⊛ Proprietary (10)
○ Social Cultural (1)
☼ Social Cultural (10)
OSWEGO
ONONDAGA
CAYUGA
MADISON
CORTLAND
CHENANGO
OTSEGO
TOMPKINS
TIOGA
BROOME
DELAWARE

they differ in the degree to which they offer continuing education activities for their adult clientele. Of the 415 potential Central Region service providers who were surveyed, 343 actually offer some type of learning activity for adults (See Table 62). Although many of the remaining organizations have goals and purposes which are educational in nature, they either do not offer formal learning activities (programs, courses, workshops, discussion groups, etc.) or provide educational literature only.

The amount of continuing education activity also differs by the type of provider. From Table 62 it is clear that while higher education institutions and secondary schools constitute approximately 17 percent of the providers, they offer almost 75 percent of the formal learning activities in the region. Since the main function of these institutions is educational, they already have many of the mechanisms for running major adult education programs. For most social or cultural organizations, continuing education is just one of several services which are provided for their clientele. As a result, they generally offer only a small number of activities. This same circumstance also applies to business and industrial firms whose employee training programs may focus on particular groups of employees or certain needed skills.

TABLE 62

Formal Learning Opportunities Available to Adults

Type of Organization	Organizations Providing Learning Activities N	%	Separate Learning Activities Offered N	%
Higher Education	22	6.4	2,199	49.1
Secondary/BOCES	38	11.1	1,048	23.4
Social,Cultural, Professional	172	50.1	899	19.8
Business, Industry	75	21.9	233	5.0
Proprietary	36	10.5	121	2.7
	343	100.0	4,480	100.0

Table 63 shows the range of continuing education enrollments for providers (excluding employers in business and industry) during the 1973 - 1974 academic year. Roughly one-third of the continuing education efforts sponsored in the Central Region are small in their scope, reaching 100 or fewer adults per year; another one-third of the efforts fall in the range of 100 to 500 adults and one third are larger programs, totaling 500 or more adults each year.

When providers and potential providers (except employers) were asked about their plans for enlarging or increasing their continuing education activities, approximately one-half said that they plan to increase offerings in the coming year. Another one-third of the respondents indicated that they intend to maintain their programs at the present level. Fourteen institutions which do not presently offer formal learning activities plan to begin programs in the near future.

These responses point to a pattern of continuing growth in adult education activities among providers in the Central Region. However, the plans for growth appear to be confined primarily to educational institutions (See Table 64). When these policies were examined more closely, it was discovered that higher education and secondary level institutions were most likely to anticipate an increase in offerings while proprietary institutions and voluntary organizations were less likely to look toward an expansion of their present programs.

TABLE 63

Total Continuing Education Enrollment for 1973-1974 Academic Year by Type of Provider (Except Employers)

Type of Institution		Number of Persons Enrolled							
		1 - 50	51-100	101-250	251-500	501-1000	1001-2500	2501 & over	TOTAL
Higher Education	N	2	2	3	0	2	5	6	20
	%	10.0	10.0	15.0	0.0	10.0	25.0	30.0	100.0
Secondary	N	0	2	8	7	7	2	2	28
	%	0.0	7.1	28.6	25.0	34.6	7.1	7.1	100.0
BOCES	N	1	0	0	0	2	4	1	8
	%	12.5	0.0	0.0	0.0	25.0	50.0	12.5	100.0
Proprietary	N	9	5	9	2	3	1	0	29
	%	31.0	17.2	31.0	6.9	10.3	3.4	0.0	100.0
Social/Cultural/ Professional	N	46	25	27	25	19	15	11	168
	%	27.4	14.9	16.1	14.9	11.3	8.9	6.6	100.0
TOTAL		58	34	47	34	33	27	20	253

TABLE 64

Plans for Increase in Continuing Education by Type of Provider (Except Employers)

Type of Institution		Begin Offering	Increase	Stay the Same	Other	No Answers	Total
Higher Education	N	0	19	2	1	0	22
	%	0.0	86.4	9.1	4.5	0.0	100.0
Secondary	N	1	17	7	1	3	29
	%	3.4	58.6	24.1	3.4	10.3	100.0
BOCES	N	0	8	0	0	1	9
	%	0.0	88.9	0.0	0.0	11.1	100.0
Proprietary	N	0	16	15	2	5	38
	%	0.0	42.1	39.5	5.3	13.1	100.0
Social/ Cultural/ Professional	N	13	99	84	0	29	225
	%	5.8	44.0	37.3	0.0	12.9	100.0
Summary Totals	N	14	159	108	4	38	323
	%	4.3	49.2	33.4	1.2	11.8	100.0

In order to administer present continuing education activities effectively, providers must make their clientele aware of what these activities are as well as when, where and how adults may take advantage of them. Continuing education for adults is, of course, voluntary and as a result, an essential part of planning a program involves publicity or recruitment of the adult learners who might wish to participate. Since most institutions and organizations use a variety of methods to reach the public, providers were asked to indicate not only which methods they used to make their offerings known, but also which methods they felt were most effective in disseminating continuing education information.

The providers'* responses to these questions are summarized in Tables 65 and 66. In general, the methods most frequently used by providers correspond with those methods they perceive to be most effective with newspaper ads and printed matter leading the lists. However, many providers indicated that personal contact or word of mouth is also a highly effective method of reaching adults. Utilizing spaces for free responses, a number of these providers explained that positive comments about the activities made by present and former adult students to their friends, relatives, co-workers, neighbors or acquaintances are especially influential in attracting new students. Since these comments were not solicited by the providers and tended to result from the merits of the program, they were not mentioned as an information source under the control of the providers.

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*The base figure (N) for calculating percents is 323, which represents all providers in the sample except employers in business and industry. This figure is used as the base N for Tables 63 through 67.

TABLE 65

Sources Utilized by Educational Institutions to Inform Adults About Continuing Education

	N*	% of Providers**
Newspaper Ads	76	23.5
Literature on Request	65	20.1
Special Mailings	47	14.6
Broadcast Ads	42	13.0
Representatives in Business	37	11.5
Special Services for Adult Education Students	15	4.6
Employment Counselor	8	2.5
Other	34	10.5
TOTAL	324	100.0

TABLE 66

Providers' Opinion of Most Effective Methods of Information Dissemination

	N*	% of Providers**	% of Methods Cited as Most Effective
Newspaper Ads	37	11.5	29.1
Special Meetings	27	8.4	21.3
Personal Contact	26	8.0	20.4
Broadcast Ads	7	2.2	5.5
Literature on Request	6	1.9	4.7
Representatives in Business	4	1.2	3.2
Employment Counselors	1	.3	0.8
Other	19	5.9	15.0
	127	100.0	100.0

*Providers could list more than one method.
**Based on 323 providers in the sample (excludes employers).

In addition to supplying information for their adult clienteles, providers themselves need current and detailed information on which to base policy and program decisions. Thus, those providers who serve the general adult population (i.e., all providers except employers) were asked to indicate the kinds of information they would find most helpful in making decisions about and/or implementing continuing education prorams. The most frequently mentioned need (cited by 45 percent of the providers) was for information about the learning needs and interests of adults. Other major information categories related to how to attract audiences, what financial sources might be identified for funding and how providers might cooperate with other insitutions or organizations.

TABLE 67

Priority Information Needs of Continuing Education Providers

	N*	% of Providers**
Needs and Interests of Adults	147	45.5
Audience Attraction	104	32.2
Financial Sources	101	31.3
Cooperation with Others	100	31.0
Potential Audience Numbers	84	26.0
Attracting Adult Education Teachers	73	22.6
Proposal Writing	64	19.8
Evaluation of Program	57	17.6
Methods for Adult Education Teachers	51	15.8
Subject Matter	45	13.9
Location of Potential Audience	43	13.3
New Teaching Materials	43	13.3
Audience's Ability to Pay	42	13.0
Audience's Ability to Travel	42	13.0
Training of Adult Education Teachers	40	12.4
What to Charge for Courses	40	12.4
Finding Classroom Space	30	9.3
Teaching Methods for Adult Education	27	8.4
Competition with Others	26	8.0
Policies of Adult Education	26	8.0
Administration of Adult Education	24	7.4
Philosoph of Adult Education	13	4.0

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*Providers could mention more than one information need.

**Based on 323 providers in the sample (excludes employers in business and industry).

Learning Activities for Adults

A major part of each resources survey asked providers to list all continuing education learning activities offered in the Spring 1974 semester, and, further, to describe certain characteristics of those activities. For the purposes of this survey, continuing education learning activities were defined as:

1. Activities including courses and/or programs designed specifically for continuing education students.
2. Activities including courses and/or programs, although not specifically intended for continuing education students but which are open to part-time students and offered at 3:30 p.m. or after on weekdays, or on weekends.

Using this definition, providers in all categories indicated that over 4,000 offerings were available to adults in the period from January 1st to June 30th, or the Spring academic semester 1974 (See Table 68). The four largest subject categories of these learning activities are business, fine arts, social sciences and trades.

TABLE 68

Learning Activities Offered by Providers in Spring 1974

	N	% of Total Activities
Fine Arts	518	11.9
Business	506	11.6
Social Sciences	483	11.1
Trades	454	10.4
Human Ecology	308	7.1
Physical Ed. and Recreation	287	6.6
Health Professions	270	6.2
Education	258	5.9
Health and Safety	246	5.7
English	181	4.2
Natural Sciences	142	3.3
Agriculture	106	2.4
Math	94	2.2
Engineering	91	2.1
Foreign Language	90	2.1
Computer Science	67	1.5
Public Service	64	1.5
Degree Studies	45	1.0
Communications	30	0.7
Religion	27	0.6
Area Studies	23	0.5
Architecture	22	0.5
Law	17	0.4
Library Science	14	0.3
Interdisciplinary Studies	5	0.1
TOTAL	4,348	100.0

Table 69 illustrates that the majority of these activities were offered on a credit-free basis. Only 37.8 percent of the activities available were given for credit. This may be explained, in part, by the observation that colleges and universities (22 in the region) are the main providers of credit-bearing learning activities and even these institutions offer credit-free courses and programs for adults.

TABLE 69

Credit Status of Learning Activities

	N	%
Credit	1,642	37.8
Non-credit	2,706	62.2
	4,348	100.0

The costs of these learning activities to adults cover a broad range with some activities having no tuition costs or fees for participation and others costing the participant up to one hundred dollars a credit hour, or $30C for an average course. However, Table 70 illustrates that the majority of activities are in the under-$50 range with another quarter of the activities costing between $50 and $100.

TABLE 70

Cost Schedules for Continuing Education Learning Activities

Cost of Activity	N	%
No Cost	611	16.6
$1 - 50	1,745	44.0
$50 - 100	1,060	26.6
$100 +	508	12.8
TOTAL	3,983	100.0

As might be anticipated, when these costswere examined in greater depth, it wasfound that tuition rates are highly related to the type of institution sponsoring the activity. Higher education institutions have the highest costs to participants. 72.6 percent of their courses cost more than fifty dollars each. This is in contrast to costs at secondary level institutions where almost 90 percent of the offerings are under twenty dollars, and those of social, cultural and professional organizations where 42.5 percent of the activities have no cost to participants. Table 71 shows the relationship of costs of learning activities to the type of provider.

TABLE 71

Learning Activity Costs and Type of Provider

	Higher Education		Secondary BOCES		Proprietary		Business		Social Cultural Professional	
	N	%	N	%	N	%	N	%	N	%
No Cost	190	9.2	71	6.8	2	2.1	119	98.3	279	42.5
$1-10	60	2.9	526	50.4	15	15.8	2	1.7	231	35.2
$11-20	98	4.7	341	32.7	12	12.6	0	0.0	90	13.7
$21-50	217	10.5	93	8.9	22	23.2	0	0.0	47	7.2
$51-90	976	47.2	2	0.2	7	7.4	0	0.0	10	1.5
$91 +	526	25.4	10	1.0	37	38.9	0	0.0	0	0.0
TOTALS	2067	100.0	1043	100.0	95	100.0	121	100.0	657	100.0

TABLE 72

Cost of Learning Activity and Credit Content of Activity

	Credit		Non-Credit	
	N	%	N	%
No Cost	0	0.0	661	27.7
$1-10	0	0.0	834	35.0
$11-20	11	0.7	530	22.2
$21-50	117	7.3	262	11.0
$51-90	971	60.8	24	1.0
$91 +	498	31.2	75	3.1
TOTAL	1597	100.0	2386	100.0

There are many types of providers of continuing education services and these providers offer their services in a variety of locations. Generally, providers appear to offer most of their learning activities on their own premises with only a small percentage using other sites (See Table 73). The sites of the educational institutions sponsoring the activities are the most popular location with 65.5 percent of the activities given either in colleges and universities or in secondary schools. Another 20.7 percent of the reported activities are given in community centers such as libraries, YMCA's, YWCA's, churches and other community buildings. This pattern is beginning to change, however, with a number of educational institutions describing plans for programs in local schools, businesses and community centers in order to better reach the adult population.

TABLE 73

Learning Settings for Continuing Education Activities

	N	%
2 - 4 year college	1,941	43.3
Public School	995	22.2
Community Center	926	20.7
Business or Industry	280	6.3
Other	338	7.5
TOTAL	4,480	100.0

Educators frequently cite small class size as a desirable characteristic in facilitating learning. In this context, a positive characteristic of continuing education activities may be that they tend to have relatively small enrollments. Well over half (62%) of the activities reported had fewer than twenty people enrolled and only 10 percent had an enrollment of 50 or more.

TABLE 74

Class Sizes in Continuing Education Activities

Class Size	N	%
10 or less	798	24.8
11 - 20	1,192	37.1
21 - 30	620	19.3
31 - 50	265	8.2
51 or more	341	10.6
TOTAL	3,216	100.0

TABLE 75

Meeting Times of Continuing Education Activities

Time of Day	N	%
Daytime	650	13.9
Evening	3,098	80.7
Day and Evening (both)	79	2.1
Other	14	0.4
TOTAL	3,841	100.0

TABLE 76

Meeting Day of Continuing Education Activity

Day(s) of Week	N	%
Weekday	3,699	96.7
Weekend	60	1.6
All Week/Any Day	40	1.0
Weekday & Weekend	28	0.7
TOTAL	3,827	100.0

TABLE 77

Weekly Class Hours Required for Continuing Education Activities

Number of Hours	N	%
One	143	4.0
Two	971	27.3
Three	1,963	55.1
Four	191	5.4
Five or More	293	8.2
TOTAL	3,561	100.0

TABLE 78

Total Length of Continuing Education Activities

Number of Months	N	%
Less than one month	567	14.4
One - six months	3,222	81.6
Six months - one year	67	1.7
More than one year	91	2.3
TOTAL	3,947	100.0

About one-half of the sponsored activities have some form of restriction placed on participation in them. The most common restriction requires non-residents of a school district, a county or a state to pay a higher rate of tuition. Approximately 35 percent of the activities with restrictions have other courses listed as prerequisites. This is true primarily of college credit courses and some occupational skills courses in secondary schools.

TABLE 79

Institutional Constraints on Continuing Education Learning Activities

	N	%
Activity has restrictions	2,150	49.8
Activity has no restrictions	2,170	50.2
TOTAL	4,320	100.0

TABLE 80

Institutional Restrictions Placed on Learning Activities*

	N	% of Restricted Activities (N=2150)
Costs more for non-member/ non-resident	861	40.0
Prerequisite required	748	34.8
Enrollment restricted to members	590	27.4
Other	80	3.7

*Some activities had more than one restriction.

At the same time providers supplied information about individual learning activities, they were asked to describe any continuing education programs available to adults. A program was defined as a set of learning activities designed for adult students which might (but not necessarily) lead to the award of some degree or certification. The definition included, for example, workshop programs and part-time degree programs. All of the programs inventoried originated from higher education institutions. The four learning categories in which programs were most frequently offered were business, education, social sciences and trades. Not surprisingly, these categories were found to be very similar to the topics of the specific learning activities offered by those institutions.

TABLE 81

Programs Offered by Providers in Spring 1974

	N	%
Business	21	15.4
Education	16	11.8
Social Sciences	12	8.8
Trades	11	8.1
Communications	10	7.4
Public Service	10	7.4
Interdisciplinary Studies	9	6.6
Physical Education and Recreation	8	5.9
Engineering	7	5.2
Natural Sciences	6	4.4
Health and Safety	5	3.7
Fine Arts	4	2.9
English	4	2.9
Degree Studies	3	2.2
Health Professions	3	2.2
Math	3	2.2
Computer Science	2	1.5
Human Ecology	2	1.5
TOTAL	136	100.0

The majority of continuing education programs lead to some institutional form of recognition (See Table 82). For almost half of them, the recognition is a certificate; in another 31 percent, the associate degree was offered. The prevalence of such certificates may be explained by the relative ease of organizing a workshop to be held in short sessions, evenings or weekends. In addition, a certificate is a flexible award; it can be used for many different areas and levels of expertise. In contrast, converting the requirements for obtaining a bachelor's degree into evening sessions is an arduous and complex task for the institution.

TABLE 82

Recognition for Completion of Continuing Education Learning Activity

	N	%
None	14	10.3
Certificate	69	50.7
Associate Degree	44	32.4
Bachelor's Degree	4	2.9
Graduate/Professional Degree	2	1.5
Other	3	2.2
TOTAL	136	100.0

The focus of these programs varies considerably with about one-half focused primarily on occupational skills. The other programs are mainly in the areas of liberal arts, personal development and public affairs (See Table 83).

TABLE 83

Focus of Programs in Continuing Education Learning Activity

	N	%
Occupational Skills	70	51.5
General Education/Liberal Arts	29	21.3
Public Affairs	17	12.5
Personal Development	16	11.8
Leisure/Recreation	2	1.5
Other	2	1.5
TOTAL	136	100.0

In addition to asking certain common questions of each institution, differences in the categories of institutions made it necessary to ask some special questions of each group. The responses to these special questions and discussion of findings applicable to the various categories of providers are presented in the sections to follow.

Educational Institutions

Higher education institutions are the main providers who must be concerned with the problem of credit. Because credit earned in a continuing education program may eventually be counted toward an associate or bachelor's degree, many institutions have to deal with the problem of assessing the learning an adult student may feel he or she has gained from life experience or from other sources. In general, most of the institutions of higher education in the region say they will allow a student credit for up to thirty hours from outside assessment (See Table 84).

TABLE 84

Number of Credit Hours Which Can Be Earned by Special Assessment

	N	%
None	3	13.6
No Limit	1	4.6
Up to 6 hours	2	9.1
Up to 30 hours	12	54.6
Up to 36 hours	1	4.6
Other	3	13.6
TOTAL	22	100.0

Such credit is accepted from a variety of sources although over half of the schools would accept credit from CLEP, CPEP, USAFI, equivalency tests and other colleges as indicated in Table 85.

TABLE 85

Sources From Which Institutions Will Accept Assessment or Experience In Awarding Credit to Adult Education Students

(N = 22)

	N	% of Total
CLEP	18	94.7
CPEP	16	84.2
USAFI	14	73.7
Other Standardized Exams	6	31.6
Other College Credit	10	52.6
Equivalency Test	11	57.9
Oral Exam	4	21.1
Other Assessment	7	36.8
Work Experience	4	21.1
Other Experience	2	10.5

Colleges and universities are also the primary institutions which have a formal financial aid program in existence; many of the other types of institutions and organizations which offer inexpensive or free activities have less need for an extensive aid program. Approximately one-half of the higher education institutions said loans and scholarships are available to continuing education students. However, this finding should be interpreted with caution since obtaining such aid is frequently contingent upon other conditions (e.g., a student must be matriculated, etc.).

TABLE 86

Financial Aid Programs Available to Adult Education Students (N = 22)

	N*	%
Loans	11	50.0
Scholarships	11	50.0
Work/Study	6	27.3
Other	4	18.2

*Some institutions mentioned more than one type of financial aid.

Both colleges and secondary schools were asked about the kinds of support services they make available to adult education students. From one-third to one-half of these institutions offer some form of counseling and/or placement service for their continuing education students. In addition, about one-third also have library services available.

TABLE 87

Support Services Provided for Continuing Education Students (N = 60)

	N*	%
Academic Counseling	27	45.0
Career Counseling	25	41.7
Library Services	23	38.3
Personal Counseling	22	36.7
Placement	21	35.0
Health Services	10	16.7
Remedial Education	8	13.3
Day Care	5	8.3

*Some institutions provided more than one service.

Colleges and secondary schools were also asked who taught their continuing education classes. Their responses indicated that few institutions have separate adult/continuing education faculties and that most schools rely on some combination of their own regular daytime faculties and special teachers such as people from the local community who are employed to teach a particular course (See Table 88).

TABLE 88

Faculty Composition in Continuing Education Programs (N = 59*)

Percent of Faculty	Regular Faculty N	Regular Faculty %	Separate Continuing Education Faculty N	Separate Continuing Education Faculty %	Special Faculty N	Special Faculty %
51 - 100%	31	52.5	2	3.4	17	28.8
50%	8	13.6	0	0.0	8	13.6
1 - 49%	20	33.9	4	6.8	30	50.8
0%	0	0.0	52	88.1	3	5.1
Other	0	0.0	1	1.7	1	1.7
TOTAL	59	100.0	59	100.0	59	100.0

*1 secondary school did not supply information.

One important task of continuing education providers is the development of new courses and programs. Table 89 shows the responses of educational institutions to the sources they consult when planning new programs or activities for adults. Many institutions (25%) saw the community as taking a major role in advising on new programs and learning activities although the largest percentage still said that new programs are originated by staff in the continuing education office.

TABLE 89

Sources Consulted by Educational Institutions When Originating New Programs and Learning Activities (N = 60)

Sources	N	%
Continuing Education Office	19	33.9
Community	14	25.0
Faculty or Staff	9	16.1
Students	4	7.1
Academic Counseling	4	7.1
Academic Department	2	3.6
Industry	1	1.8
Other	3	5.4
TOTAL	56	100.0

Finally, educational institutions were questioned about their sources of funding for continuing education. About three-quarters of the schools finance their programs through the tuition and fees paid by students. Although continuing education programs are primarily self-sustaining, a few of the institutions do have sources of revenue from grants or other subsidies (See Table 90).

TABLE 90

Institutional Sources of Funding For Continuing Education Programs* (N=60)

Funding Source	N	% of Educational Institutions Citing Source
Self Sustaining	45	75.0
Institutional Subsidy	12	20.0
Foundation/Grant	11	18.3
Other Source	10	16.7

*Some institutions mentioned more than one funding source.

Proprietary Institutions

The proprietary institutions in the Central Region are located in the larger cities and may be categorized into two general types: 1) institutions offering job skill training and 2) institutions offering instruction to adults primarily for avocational or recreational reasons. Institutions in this first group provide instruction in business and office occupations, cosmetology, medical and health occupations and skilled trades. Examples of institutions in the second category are judo and karate schools, scuba and skin diving schools, dance schools and ski schools.

These institutions do not offer the range or choice of programs found at community colleges or area occupational centers since they generally provide instruction in one or two specific skill areas. Interestingly, many of these institutions have established informal linkages with other providers by providing instructors for courses (e.g., an instructor at a local karate school who teaches a non-credit karate course in a public school evening program or a community college program). Since such schools are dependent upon student tuition and fees in order to operate, programs are flexible and change in response to student needs and demand for services.

TABLE 91

Purposes of Proprietary Institutions Surveyed in the Central Region

Purpose	N	%
Professional/Occupational	18	47.4
General Educational/ Cultural Avocational	16	42.1
Other	3	7.9
No Answer	1	2.6
TOTAL	38	100.0

Social/Cultural/Professional Organizations and Agencies

In order to get a clear picture of the kinds of organizations included in this diverse group, these organizations were asked to categorize themselves according to the purpose or main mission of their group. The largest group saw themselves as either community service or educational-cultural in their orientation with over 65 percent in these two categories (See Table 92).

TABLE 92

Main Purposes of Organizations and Agencies in Social/Cultural/Professional Category

Purpose	N	% of Organizations
Community Service	88	38.9
Educational/Cultural	70	31.0
Health	30	13.3
Professional/Occupational	5	2.2
Social/Recreational	9	4.0
Governmental	7	3.1
Religious	5	2.2
Other	1	0.4
No Answer	11	4.9
TOTAL	226	100.0

Of the 226 organizations defined as Social/Cultural, 180, or 79.6% offer learning activities to adults. This number is the base for the tables that follow. Some of these organizations offer courses only for in-service training for volunteers and staff; others, particularly professional or occupational groups, have courses open only to members but the majority of the social/cultural providers offer courses for the general public.

TABLE 93

Target Audiences for Social/Cultural/ Professional Learning Activities*

	N	% of Organizations Offering Learning Activities (N=180)
General Public	121	67.2
Volunteeer Workers	76	42.2
Specialized Audiences	75	41.7
Paid Staff	46	25.6
Membership Only	44	24.4

*Some organizations listed more than one audience.

Many of these providers do not have the facilities to offer continuing education activities at their own organization headquarters. As a result, many use public schools, colleges or community locations as sites for course offerings. Some of these providers offer certain learing activities simultaneously at several locations in the region to better serve the adult population by reducing travel distances (See Tables 94 and 95).

TABLE 94

Social/Cultural/Professional Learning Activities

	N*	% of Organizations Reporting Locations (N = 177)
Headquarters Only	30	16.9
Headquarters and Other Sites	93	52.5
Other Locations Only	54	30.5
TOTAL	177	100.0

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*3 organizations did not answer this question.

Table 95 shows which alternative locations are employed by the 147 organizations using locations in addition to, or other than, their headquarters. Church buildings and community centers are the most popular other locations; these settings are utilized by over one-half of the organizations. However, public schools and other educational institutions follow closely in popularity as alternative sites.

TABLE 95

Other Locations Utilized for Course Offerings

Location	Number of Organizations Using Location*	% of Organizations Using Other Location (N=147)	% of Organizations With Learning Activities (N=180)
Church/Church Hall	80	54.4	44.4
Community Center	79	53.7	43.9
Public School	69	46.9	38.3
Other Educational Institution	63	42.8	35.0
Business/Industrial Site	30	20.4	16.7
Cultural Center	24	16.3	13.3
Private Homes	15	10.2	8.3
Other	41	27.9	8.3

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*Organizations could mention more than one location.

The nature of some social/cultural organizations necessitates the use of their staff members as teachers of adult education classes. As a result, these providers have some special training needs for their staff. Understanding adult needs, especially in the educational sense, is the first priority; however, teaching skills, goal setting skills, understanding organizational management and developing working relationships with others are seen as important training needs.

TABLE 96

Staff Training Needs Expressed by Social/Cultural/Professional Organizations and Agencies (N=102)

	N	% of Those Responding
Understanding Adult Needs	26	25.5
Teaching Skills	24	23.8
Goal Setting	24	23.8
Organization Management	23	22.5
Working Relationships	23	22.5
Other	16	15.7

Employer-Based Learning Resources

A separate survey of providers was conducted (of the employees of the Central Region) in order to address some of the questions unique to this group. Although these employers may provide training for their own employees exclusively, they are still an essential part of the continuing education network in the region. Ninety-one out of 455 possible firms responded to the mailed questionnaires, with the majority of respondents being manufacturing firms (See Table 97).

TABLE 97

Categories of Employers Surveyed

	N	%
Manufacturing	47	51.6
Service	20	22.0
Retail	7	7.7
Wholesale	2	2.2
Consulting	2	2.2
Finance	1	1.1
Other	12	13.2
TOTAL	91	100.0

The size of the firms surveyed ranged from two employees to over 1,000, with the average business employing from 100 to 500 persons (See Table 98).

TABLE 98

Total Number of Employees Working for Firms

	N	%
1 - 50	22	24.2
51 - 100	5	5.5
101 - 500	44	48.4
501 - 1000	9	9.9
1001 +	11	12.1
TOTAL	91	100.0

In the survey, a series of questions centered about the training needs of employees as viewed by their employers (See Table 99). Most of the employers seem to recognize a need for updating skills through some form of occupational continuing education program. In general, the subject areas firms feel are most important for employee training are business skills (e.g., accounting, business management, secretarial skills and public relations), and trades (e.g., machine work, blueprint reading or metal work). Other than these areas quite specific to businesses' needs, many employers also mentioned a need for some type of degree or diploma-oriented study. These included studyfor high school equivalency or some form of college degree from associate degree to M.B.A. A fourth area of study specified by about ten percent of the firms was social sciences. Learning content in this area included such topics as industrial psychology, human relations, social issues and economics.

TABLE 99

Employee Training Needs Listed by Employers*

Training Need	Number of Times Mentioned	%
Business	137	37.7
Trades	81	22.3
Degree Studies	43	11.8
Social Sciences	39	10.7
Engineering	18	5.0
Computer Science	12	3.3
Math	9	2.5
Health Professions	8	2.2
English	6	1.6
Health & Safety	5	1.4
Communications	2	0.6
Human Development	2	0.6
Natural Science	1	0.3
TOTAL	363	100.0

*Employers could list more than one need, or the same need for different employee categories.

Although employers generally cited the foregoing training needs as overall priorities for their workers, they differentiated among the various categories of workers in describing specific learning needs. For example, predictably, business management, administration, social sciences and BA or MBA degree studies were perceived as top priority for professional employeeswhile study in the trades, engineering and for a high school diploma were seen as most important for craftsmen and operatives (See Table 100).

TABLE 100

Employers' Priority Training Needs for Different Categories of Employees

Professional

Business-management
Social Sciences
Degree Studies - BA, MBA

Craftsmen/Operatives

Trades
Diploma Studies - High School
Engineering

Laborers

Trades
Social Sciences
Business

Clerical/Sales

Business-Accounting-Secretarial
Computer Science
Degree or Diploma Studies-AA or High School Diploma

Service Workers

Trades
Diploma Studies - High School
Business/Social Sciences

To probe further into the question of what employee training needs are important to employers, firms were requested to look ahead five years and project what changes they expected to occur over that period. Twenty-three of the 91 employers (25%) indicated that they were unable to project such changes in training needs with any degree of certainty as a result of the rapidly changing economic conditions. Another 21 employers saw no real change in the training needs for their workers (See Table 101). The five changes (Most commonly expected) were increased needs for craftsmen and updating of their skills, increased use of data processing, more automation and a need for new skills for professional workers.

TABLE 101

Changes in Skill Types and Employee Training Needs Expected by Firms -- Ranked by Priority (N=47)

	N	% of Total Responses	% of Those Employers Responding (N=47)
Increased Need for Craftsmen	13	16.6	27.6
Increased Use of Data Processing	11	14.1	23.4
New Skills for Professionals	10	12.8	21.3
New Skills for Craftsmen	7	9.0	14.9
More Automation	7	9.0	14.9
Increased Need for Professionals	5	6.4	10.6
Increased Need for Operatives	5	6.4	10.6
More In-House Training	3	3.8	6.4
New Skills for Operatives	3	3.8	6.4
New Skills for Service Workers	3	3.8	6.4
Increased Use of Public Relations	2	2.6	4.2
More Affective Training	2	2.6	4.2
New Skills for Clerical Workers	2	2.6	4.2
New Skills for Salesmen	1	1.3	2.1
New Skills for Laborers	1	1.3	2.1
Increased Need for Service Workers	1	1.3	2.1
Decreased Need for Liberal Arts Grad	1	1.3	2.1
Decreased Need for Operatives	1	1.3	2.1
	78	100.0	100.0

A primary focus in the study of employer-based continuing education was an attempt to answer the question, "To what extent do employers provide and support continuing education for their employees?" This interest extended to the whole spectrum of opportunities provided within the firms themselves as well as cooperative ventures between business and educational institutions. The great majority of the firms studied carry out some form of employee training (See Table 102).

TABLE 102

Employee Training Programs in Central New York Firms

Firm	N	% of Employers (N=91)
Has training program	75	82.4
Does not have training program	16	17.6
TOTAL	91	100.0

In addition, it is evident that firms carry on programs regardless of their size (See Table 103).

TABLE 103

Relationship of Firm Size to Sponsorship of Employer-Based Training Activities

Size of Firm		Firms With Training Program	Firms Without Training Programs	Totals
1 - 50	N	17	5	22
	%	77.3	22.7	100.0
51 - 100	N	4	1	5
	%	80.0	20.0	100.0
101 - 500	N	37	7	44
	%	84.1	15.9	100.0
501 - 1,000	N	7	2	9
	%	77.8	22.2	100.0
Over 1,000	N	10	1	11
	%	90.0	9.1	100.0
		75	16	91

Generally the larger employers have the most extensive programs while much of the employee training in smaller firms tends to be primarily on-the-job training or employee orientation. Few small or even middle-sized firms have either the facilities or the budgets to develop a comprehensive program of in-house learning activities for their employees. Only about 45 percent of the firms surveyed sponsor in-house training (See Table 104).

TABLE 104

Employer-Sponsored In-House Training Courses for Employees

	N	%
Has in-house courses	40	44.0
Does not have in-house courses/ other training available	35	38.5
Does not have training program	16	17.6
	91	100.0

The number of employees involved in employer-based training efforts varies widely (See Table 105). Although a majority of the employers surveyed provide training for 25 or fewer persons, a few firms offer learning activities for 500 to 1000 workers.

TABLE 105

Number of Employees Per Firm Involved in Employee Training - 1973 - 1974

	Fall 1973		Spring 1974	
Number of Employees	N	% of Firms Involved in Employee Training	N	% of Firms Involved in Employee Training
1 - 10	28	43.8	29	46.8
11 - 25	14	21.9	7	11.3
26 - 50	7	10.9	11	17.7
51 - 75	3	4.7	3	4.9
76 - 100	4	6.2	1	1.6
100 +	8	12.5	11	17.7
TOTALS	64	100.0	62	100.0

Employers were also asked how many of their employees were involved in continuing education learning activities provided by educational institutions or other sources during the past year (See Table 106). In almost all cases, totals supplied by employers reflect the number of employees whose learning outside the firm was reimbursed or subsidized in part or in whole. Most employers explained that totals were not available for employees who engage in study not job-related or supported financially by the firm.

TABLE 106

Number of Employees Per Firm Involved in Adult/ Continuing Education Learning Activities -- 1973 and 1974

	Fall 1973		Spring 1974	
Number of Employees	N	%*	N	%*
1 - 10	47	73.4	44	69.8
11 - 25	9	14.1	9	14.3
26 - 50	4	6.3	8	12.7
51 - 75	2	3.1	1	1.6
76 +	2	3.1	1	1.6
TOTALS	64	100.0	63	100.0

*% of firms with employees involved in firm-sponsored learning.

In addition to conducting their own courses (See Table 104), 27 firms are cooperating with educational institutions, primarily BOCES and community colleges, to provide employee training opportunities. Courses offered in this way tend to be in the business and trades areas, but they also include instruction in engineering, health professions and public service.

Another way in which business and industrial firms encourage employee participation in continuing education is by making some form of financial aid available to them. Most of these programs are presently built around a tuition reimbursement plan. Just over half of the firms surveyed offer some form of financial assistance to their employees (See Table 107).

TABLE 107

Employer Financial Support of Employee Continuing Education Activities

	N	%
Financial Aid Avialable	53	58.2
No Financial Aid	34	37.4
No Answer	4	4.4
TOTAL	91	100.0

In general, the larger a firm is, the more likely it is to have a financial aid program. While only 36.8 percent of the firms employing fewer than fifty persons have an aid program, all of the firms employing over 1,000 workers have such a program (See Table 108).

TABLE 108

Relationship of Size of Firm to Availability of Support For Employee Continuing Education (N = 87)

Size of Firm Total Employees		Financial Support Available	Financial Support Not Available	Totals
1 - 50	N	7	13	20
	%	35.0	65.0	100.0
51 - 100	N	2	3	5
	%	40.0	60.0	100.0
101 - 500	N	25	17	42
	%	59.5	40.5	100.0
501 - 1000	N	8	1	9
	%	88.9	11.1	100.0
Over 1000	N	11	0	11
	%	100.0	0.0	100.0
TOTAL		53	34	87

The availability of financial aid to the employee is usually contingent on several conditions which are specified by the employer (See Table 109). The most frequent stipulation made by employers is that learning activity be job-related, but firms differed in the strictness with which they defined the term. Eighty-six percent of those who offer financial programs make job-relatedness a requirement for reimbursement. The other main condition required by firms is satisfactory completion of the course by the employee. This condition is interpreted by employers to mean either receiving a passing grade in the course or activity or attaining a certain minimum grade in the course (e.g., a "B") to be eligible for full reimbursement.

TABLE 109

Conditions for Obtaining Employer Financial Support

Conditions*	N	% of Firms Offering Support (N=53)
Job related activity	46	86.8
Satisfactory completion	26	49.1
Prior approval	18	34.0
Degree program	15	28.3
Full time permanent employee	13	24.5
Specified term of employment	7	13.2

*More than one condition could be cited by employers.

Many firms offer incentives other than financial aid to employees in order to encourage participation in continuing education learning activities (See Table 110). Approximately 63 percent of the firms said they would give an employee consideration for promotion if he or she completed an approved continuing education activity. Almost one-third of the companies allow employees release time from their jobs to participate in courses or programs conducted either at or outside the place of employment.

TABLE 110

Incentives Offered to Employees to Encourage Participation in Continuing Education

	N	%
Consideration for Promotion	42	62.7
Release Time	21	31.3
Salary Increase	4	6.0
	67	100.0

CHAPTER VII

CONCLUSIONS AND RECOMMENDATIONS

A large majority of adults in the Central Region wish to continue their education beyond the years of formal schooling, and many institutions, organizations and agencies are attempting to provide appropriate continuing education services for them. In general, the activities offered by the providers of learning opportunities are in the same learning areas cited as preferences by adults. Although the learning needs of adults in the region are being generally addressed, the efforts to date have best met the needs of those who are already participants in continuing education activities. These are among the important findings in this research. To provide data to improve services and increase adult participation, specific findings from the study are presented as follows.

Adult Interests and Participation

The findings show a diversity of adult interest and preferences for various study conditions. Adulthood spans a wide range of years and encompasses time periods of changing personal, family and vocational duties and responsibilities; hence, it is not surprising to find that adults have varying educational needs at different times in their life span. Likewise, these adults have unique needs as individuals, needs which at times may be shared with others of similar sex, occupation, age, income level, education or other characteristics. The results of the study confirm this heterogeneity of the adult population and emphasize the need for continuing education planning and programming which focuses on these differences. The following are some specific findings of this research:

1. Most adults want to continue to learn.
2. Adults in general cite the social sciences, the trades and business as the three top areas of learning interest followed by such topics as home and family living, physical education, fine and applied arts and crafts.
3. The majority of adults expressed preferences for learning in traditional educational settings such as the public school and two or four-year colleges and universities. The choice of the public school as the most preferred location for learning may indicate that adults wish to study in a convenient and/or familiar setting.
4. The majority of adults prefer to learn through workshop or lecture methods; some expressed interest in learning through independent or home study or non-traditional methods.
5. Most adults are willing to spend two to four hours a week on a learning activity.
6. Adults specified that learning for personal interest or satisfaction was the most frequent reason for pursuing continuing education.
7. Most adults wish to be kept better informed about continuing education opportunities; almost one-third said they do not know what courses or activities are available in their own communities.
8. Previous educational experience of adults is an influential factor related to interest in continuing education. Adults with some post secondary education are more likely to participate in continuing education than adults with less formal education.

9. The educational background of adults affects their learning interests. The less education adults had the more they clustered their interest in utilitarian or job-related areas.
10. Adults with post-secondary education tend to cite lack of time as a barrier to learning more frequently than other adults. Those with less than a high school education most often name cost as a barrier.
11. Differences in the learning interests of adults are associated with their occupations. In general, these learning interests reflect the training and background characteristics of the various occupational groups.
12. Members of different occupational groups differ in the frequency with which they cite barriers to their learning. For example, farmers and farm workers as a group, named lack of time as a barrier more often than adults in other occupations.
13. Adults generally said they are willing to pay something toward the costs of their learning activities. Slightly more than half prefered that the cost be $50 or less.
14. Adults are more willing to pay higher costs for learning activities that are job-related or related to an established certificate or degree program.
15. Adults with higher family incomes are more likely to participate in continuing education activities; those with yearly incomes of $10,000 or more are the most frequent participants.
16. Age and sex are also related to participation in continuing education activities. Persons aged 18 to 25 had the lowest partipation rate of adults in any age group. Women were more likely to have been participants than men.

Learning Opportunities and Adult Needs

The inventory of learning opportunities reveals the wide variety of types of providers and services available for adults in the Central Region. Over 400 different providers were identified. They offer more than 5,000 separate learning activities for adults who wish to study on a part-time basis. The services encompass activities sponsored by colleges and universities, public schools and BOCES, proprietary schools, employers, government agencies, social, cultural, religious and professional organizations.

Although the activities identified range widely in topics, costs and settings, it is likely that all individual adult learners might not find a learning activity to suit their specific requirements. On the average, providers are offering learning activities in most of the subject areas cited by adults and at times and within the fee ranges specified by respondents in the study. In spite of this general collation of adult needs and available opportunities, a particular adult may not be able to satisfy an expressed learning need for a number of reasons.

First, adults expressing the same learning interest may have different home locations, transportation problems, amounts of time or money to spend on a learning activity or other circumstances affecting participation in a given learning activity. Those adults with similar interests and circumstances may be unable to convey their preferences to a provider who might meet them or be unable to identify the provider who already has an active program in the area of interest.

On the other hand, a provider may find it economically impossible to offer a requested learning activity to a very few individuals. A provider also, may be unable to predict the potential market for a learning activity requested by only two or three adults in a community. Availability of instructors, instructional facilities or lack of financing may further restrict the availability of offerings by providers.

The following are some further specific findings that relate to continuing education resources:

1. The majority of providers plan to begin or increase continuing education activities; one-third of the providers plan to maintain their present level of programming. This suggests that the recent growth of continuing education activity will be continued. Most of the proposed growth is anticipated by educational institutions. Proprietary institutions and voluntary organizations anticipate less expansion of their present efforts.
2. Providers tend to use newspapers or printed literature for dissemination of information about continuing education programs.
3. Cost is under $50 for the majority of learning activities offered. However, costs are related to the types of providers with higher education institutions reporting the highest costs to the participant.
4. Providers of learning opportunities would like more information about the learning preferences of adults to aid them in program planning. They would also like to know more about how to reach and attract the adult audience, how to identify sources of funding and how they might cooperate with other institutions or organizations in their efforts.

5. Many providers have begun to offer learning activities at off-campus or community learning centers in order to bring activities closer to the participants. These efforts are viewed as generally successful.
6. Most of the continuing education programs, particularly in educational institutions, are financially self-sustaining. This constrains some development of new programs in interest areas where costs might be initially high for purchases of equipment

Recommendations for a More Responsive System of Continuing Education

The ideals expressed in the concepts of life long learning and recurrent education portray a citizenry fully participating in educational activities throughout the life span. Although it is clear that participation in continuing education has been growing steadily in recent years, the large numbers of adults who do not participate indicate that the goals of life-long learning are yet to be accepted or achieved by many. Since the findings of this research and other studies of adult learning interests emphasize that most adults wish to continue their learning in some manner, it is particularly essential to discover what unmet-needs may exist and what solutions might be suggested to make continuing education more responsive to adult interests. It is toward this end that the following recommendations and implications from this research are presented.

A Coordinated Continuing Education System

A close look at the institutions, organizations and agencies now providing continuing education opportunities illustrates the diversity among continuing education providers. These providers range widely in the scope and purpose of their educational activities, for example from those institutions having a major interest in the education of adults to those for whom continuing education is secondary or subordinate to other goals. The result of this varied response to an assortment of adult needs is a pluralistic system of continuing education, a system in which the multiplicity of approaches may accomodate varied objectives and educational goals but may also make access to opportunities more difficult for adults. Further, such a pluralistic system may permit unnecessary duplication of services and inefficient use of available resources. To ameliorate some of the problems resulting from this pluralistic approach, greater coordination of the continuing education delivery system is needed.

Interinstitutional Cooperation and Coordination

Cooperation and coordination of efforts among providers can help reduce or eliminate unnecessary competition among providers. Cooperation may mean the sharing of facilities and/or resources among service providers; it may include consortia, ad hoc groups or other relationships which foster communication. Institutions may arrange with local businesses, professional groups or other organizations to supply education and training to meet a special need. Through cooperative arrangements, further development and utilization of education technology can be facilitated. More sophisticated utilization of educational technology may further increase access to continuing education by supplying study opportunities for adults who find travel time or scheduling to be strong barriers to participation. The sharing of resources and expertise in educational television and production of audio and video tapes can extend the services of all concerned.

Since the many institutions and agencies now engaged in continuing education already have varied talents and competencies, these should be expanded and exploited for mutual advantage. Each institution need not try to be all things to all people, that is, to attempt to meet all the expressed needs of adults. This could lead to further duplication of efforts, unneeded proliferation or splintering of programs. Instead, institutions might analyze their total efforts and capitalize on their strengths, offering instruction and support in areas in which they are uniquely, capable. For example, business and industry might continue offering apprenticeship training or specialized training in specific company-related skills; educational institutions might provide the required general occupational training; all providers might work together with colleges and universities to provide professional staff development and advancement for continuing education.

Improvement in Information and Counseling Services for Adults

If adults are to realize their learning goals, they must have adequate information about the educational opportunities available to them. In the present research, three out of ten adults indicated that they do not know what learning opportunities are available. In addition, adults overwhelmingly stated that they would like more information about the learning activities available in their communities. While providers of educational services make efforts to disseminate information about current offerings, this information often does not reach the adults who need it. In some cases, adults require interpretation and explanation of course and program information if they are to identify the right learning activities for their needs.

Given the present pluralistic continuing education system, an adult faces a formidable task if he or she must seek out a learning opportunity to meet a specific need. Since other research (Johnstone & Rivera 1965) has pointed out that the amount of knowledge and information about learning resources is related to higher educational and socio-economic levels, it is likely that many of those adults who have need of skills also lack information about how to acquire them. In addition, since adults at the higher educational and socio-economic levels participate more frequently in continuing education activities, they are better able to convey their learning interests and preferences to providers. Consequently, there is a danger that the present system may continue to serve those who are already well-served and increase the inequities among the less educated and lower income groups. Better channels for reaching all segments of adults must be established if wider access to educational opportunities are, in fact, to be achieved.

Decentralization of Learning Opportunities

Data from the present study indicate the barriers which adults feel prevent them from taking advantage of learning activities. Such barriers further operate differentially for adults in various occupational groups, locations and income levels as well as for men and women. For adults in general, lack of time is perceived as the chief barrier to further learning. Although the response "lack of time" may include competition from other activities or responsibilities in an adult's daily routine, it may also encompass time required to travel to and from a distant learning center. Distance and transportation problems were cited by approximately ten percent of the respondents. Six percent live in rural areas and 15 percent of homemakers and the unemployed. When these responses are viewed in combination with adults' preferences for the public school as a learning site, an interesting implication for the delivery of continuing education services results. Although additional research is needed to clarify these responses, adults may be suggesting that they require more convenient learning locations for study. Consequently, decentralization of learning activities may be necessary if participation is to be increased and the goal of a "learning society" achieved.

Alleviating Financial Barriers to Learning

Although the barrier of cost affects adults in the lower income groups most strongly, other adults also find that they must pursue educational activities on a part-time basis because of financial constraints. Many students find that financial assistance from institutions is limited for part-time learners or that employers' educational assistance plans may not benefit them (e.g., in determination of job-relatedness of courses, etc.). It is likely that the changing attendance patterns in higher education and the growth of part-time study will continue. A reordering of public policies and institutional priorities is needed to provide equitable financial assistance programs which recognize the needs of the increasing numbers of part-time learners.

Development of Appropriate Curricula to Meet Adult Needs

While on the survey, the offerings of continuing education providers resemble the learning interest areas preferred by adults, gaps in services exist. For example, an examination of offerings in the trades and occupational subject areas which ranked first among the interests of non-participants showed that these offerings are often directed at the avocational learner and not necessarily intended to provide or improve job skills. With all identified offerings included, the occupational areas ranked fourth among learning activities sponsored by providers. However, almost four of every ten adults stated that they wish to learn for vocational reasons--acquiring job entry skills, improving skills or advancing in a job.

In general, the number and type of offerings in the various learning interest areas makes it difficult for an adult to put together an integrated program to reach a learning goal. For example, there may be many basic courses available in a subject area but few courses at more advanced levels of instruction. Cooperation and articulation among providers of learning opportunities is a necessary step in developing programs for adults which provide sequential learning activities and/or activities geared to the appropriate instructional levels to meet particular adult needs.

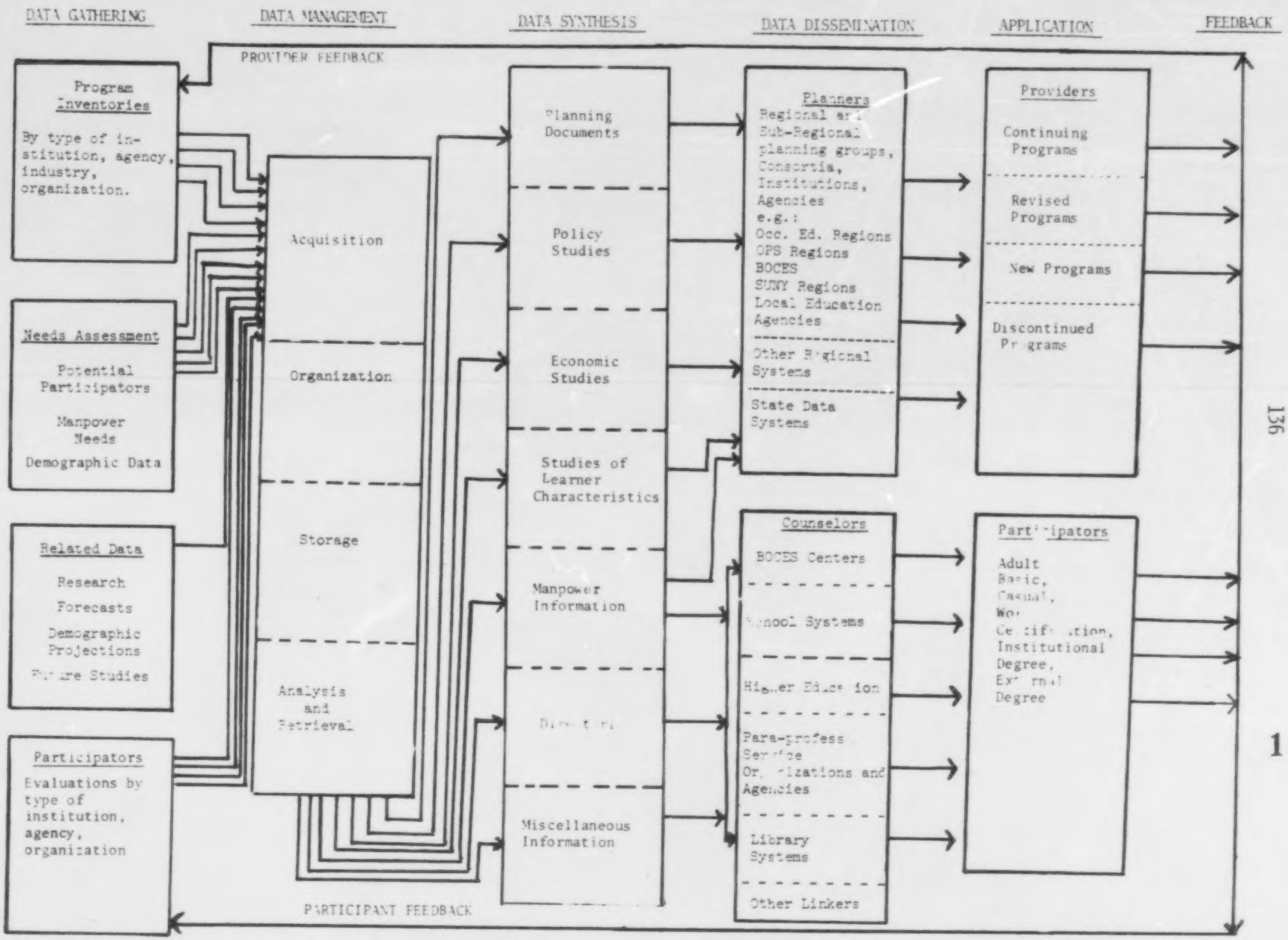
Toward a Regional Continuing Education Information Management System

A part of the charge to the project staff of the Central Region Continuing Education Studies was to propose an information management system that would support development of a comprehensive coordinated Statewide System of Post-Secondary Continuing Education. The accompanying figure represents a schematic proposal for such a system.

Several assumptions underlie the schema:

1. Planners and managers of educational programs do not have the time to identify and process all the information essential to functioning most effectively in their roles.
2. No single extant agency collects and processes information of the scope and variety essential to comprehensive planning of coordinated continuing education programs.
3. The limited financial resources available for the support of Continuing Education preclude the development of a new agency to provide information management services. The extant service capabilities of universities; the inkind services of institutions and agencies involved; the volunteer

REGIONAL CONTINUING EDUCATION INFORMATION MANAGEMENT SYSTEM


DATA GATHERING
DATA MANAGEMENT
DATA SYNTHESIS
DATA DISSEMINATION
APPLICATION
FEEDBACK
PROVIDER FEEDBACK
Program Inventories
By type of institution, agency, industry, organization.
Needs Assessment
Potential Participators
Manpower Needs
Demographic Data
Related Data
Research
Forecasts
Demographic Projections
Future Studies
Participators
Evaluations by type of institution, agency, organization
Acquisition
Organization
Storage
Analysis and Retrieval
Planning Documents
Policy Studies
Economic Studies
Studies of Learner Characteristics
Manpower Information
Directories
Miscellaneous Information
Planners
Regional and Sub-Regional planning groups, Consortia, Institutions, Agencies
e.g.:
Occ. Ed. Regions
OPS Regions
BOCES
SUNY Regions
Local Education Agencies
Other Regional Systems
State Data Systems
Counselors
BOCES Centers
School Systems
Higher Education
Para-professional Service Organizations and Agencies
Library Systems
Other Linkers
Providers
Continuing Programs
Revised Programs
New Programs
Discontinued Programs
Participators
Adult Basic,
Casual,
Work Certification,
Institutional Degree,
External Degree
PARTICIPANT FEEDBACK

services of concerned citizens and cash payments (through consortium arrangements) for services actually received should maintain the system once the initial development costs have been met.

4. Much of the analysis, organization and meaningful display of information could be performed by faculty and graduate students in a university setting. Universities could expect to, over a period of time, generate many small grants from private and government sources to support such research and development activities.
5. In a state as large and complex as New York, there is a need for a regionally based system that will ensure a responsiveness to the unique characteristics of the region to be served.
6. Information required at various program levels differs, e.g. local, sub-regional, regional, state, and that information can be acquired, stored and processed in a format that will facilitate acquisition consonant with the needs of the discrete management objectives at each level.
7. That planning, within broad State guidelines, is best accomplished at a regional level where there has already been some experience toward development of viable planning relationships, e.g. an Office of Planning Services Region, an occupational education planning region, etc.
8. That any viable information management system must incorporate a human element and that there are identifiable "natural linkers" who, because of social roles, work roles,

institutional roles, political roles, or personal initiative can and will contribute to enhancement of the system.

9. That it is the individual who determines his participation in any program of continuing education, consequently, a system must provide for constant collection of data that will help with the assessment of current programs and the identification of emerging needs.

Functions of a Management System

To provide support for the development of a Comprehensive, Coordinated Statewide System of Post-Secondary Continuing Education a system must address at least five functions:

Data Gathering
Data Management
Data Synthesis
Data Dissemination
Application
Feedback

Data Gathering

This function provides the basic resources for a data bank that will support comprehensive planning by both providers, participants and potential participants.

Program inventories should include those from every institution, organization and agency conducting continuing education activities in the region. The work of the managers of the system involves development of reporting formats that will ensure that pertinent data is gathered in a mode that will satisfy the requirements of computer or other storage modes. Samples of a typology, and program inventory forms are included in the appendices of this report.

Inputs by potential participants must be sought. One of the weaknesses of many extant efforts to address the needs of non-participators is the dearth of information about them. If institutions are to address the needs and expectations of the 40+% of adults who are not participating, needs assessments must address all segments of the population. The decennial census can serve as a basis for validation of the samples drawn. Samples can be drawn on the basis of education, age, occupation, racial and ethnic origin, or a combination of such population characteristics. Displays of interview schedules utilized in the Central Region Study are included among the appendices of this report. Experience during the Central Region Study indicates a need for further refinement of those instruments; with particular reference to probing the meaning of the now identified barriers to participation.

The decennial census provides a foundation for all types of educational planning. Since the census was not taken for that specific purpose, special efforts must be made to analyze and display census data in modes meaningful to the planner and policy maker. The Central Region Continuing Education Study's Demographic Profiles: Volumes I and II were compiled by an analysis of the 1970 Decennial Census tapes and projected with supplementary data acquired through the New York State Office of Planning Services. The display of data by township and county provides a resource that can be recollated for a school district, BOCES, a community college service area, sub-regional planning area, and/or regional planning area.

Information from business and industry represents an essential base for both individual and institutional planning. Extant sources of such data may, at best, be labelled "Speculative". The development efforts of Project Job Search (Livingston, Steuben and Wyoming Counties) provide an experimental model for acquisition and handling of such data. In the absence of the precision of a system such as that proposed by Project Job Search, an alternative approach is set forth in the CIOE publication: Program Planning in Two-Year Colleges, e.g., (Posner, Egner & Hedlund, 1975) which suggests sources of data useful to the program planner.

Related data generated through other regional, state and national studies; economic forecasts; demographic projections and future studies predictive of technological change are all useful resources for those preparing syntheses and engaged in long range planning. The data gathering function should give attention to the selection from ERIC and other data banks of high quality studies, projections, forecasts, etc. that should be brought to the attention of scholars and practitioners within the region.

The type of data that can be provided by participants in extant continuing education programs provides the fourth dimension to the data gathering function. The work of Nolfi (1973) in Massachusetts provides a useful model that might be expanded to include data for institutions and agencies in addition to institutions of higher education.

Data Management

The function of data management includes acquisition, organization, and retrieval (duplication, printing, on-line computer access, microfiche, etc.).

The process of acquisition must focus on economic strategies with extensive participation by the users. The model employing 300 Rotarian volunteers explicated in this report can be adapted to recruit participation by other volunteer and professional groups. It is important to keep in mind that the data acquired must respond to the needs of the institutions and individuals that will use it in planning. Typologies, instruments of observation, interview schedules and feedback collection must be programmed to articulate the interface of data flowing from the four sources delineated under Data Gathering.

The most convenient organizational mode for needs assessments, manpower needs, demographic data and population projections might be for computer storage and access for analysis with the SPSS program. Data coded by township, county and region could then be recollected to describe school districts, BOCES, community college service areas and/or other configurations such as urban/rural, urban/suburban, etc. useful in ascertaining the characteristics of specific target populations.

It should be noted here that regions designated for post secondary education planning are arbitrary designations and often include overlapping service regions and fragments of the service regions of institutions. Consequently, unless common typologies, instruments of observation, systems of coding and storing data and plans for accessing data are employed, institutional needs for comprehensive planning data will not be met.

Likewise, coordination of regional data management is absolutely essential if such data banks are to serve the needs of the State Education Department in providing those data essential to the periodic updating of State plans for postsecondary education. While planners at the local level will need a quantity of data sufficient to support the identification of specific target groups, resolution of inter-institutional problems of articulation, etc. State level planners will need to select only those data that have system-wide or state-wide implications. Our regional data gathering experiences and efforts to stimulate regional cooperation would indicate strongly that it would be uneconomic to attempt to collect and manage all of the necessary data in a centralized system.

Consequently, we see this regional report and its recommendations as one contribution toward the development of a comprehensive state-wide data management system. When all regional studies have been completed, a state-level task force might be formed to address the development of state-wide data management guidelines with sufficient specificity to insure systematic development of regional systems. Needless to say, such systems are not going to spring into being overnight. Long range planning for the evolution of a state-wide system that could be a sub-system of the State Education Department's computer based data management network would seem to be the most reasonable approach.

All of the data indicated under the data management function do not lend themselves to computer storage. Many of the documents indicated under the data synthesis function will of themselves become valuable data. This suggests the need for a regional depository that could be readily accessed by planners. Such a depository could be established within the library of a postsecondary institution where the holdings would also be accessible to students and scholars and could be further disseminated through established interlibrary loan arrangements.

Access to much of the related data could be facilitated by cross referencing to extant library holdings and the ERIC microfiche holdings already established at designated centers throughout the state. This further suggests the need for maintenance of a catalogue of holdings and cross references to facilitate retrieval.

Data Synthesis

The function of Data Synthesis deals with the preparation of data in forms necessary to specific uses.

In its most elementary form, synthesis, can be illustrated by the need to organize program inventories in directories that could be accessed by counselors and potential participants in planning individual life-long learning programs. Such directories would contain the minimum essential information, would be formatted to facilitate frequent revision and would be indexed to display the alternatives available to the individual by institution, program, credit status, etc.

In more complex forms, synthesis deals with the interface among data in the system and data from sources exterior to the system. Such synthesis would address the complex problems of public policy and program planning, e.g., the relationships between occupational programs and manpower needs; the most effective use of public financial resources; the cost effectiveness of alternative methodologies; the relationships between the characteristics of the adult learner and delivery of instruction via mass media.

The information management system should provide a stimulus for applied research by students and scholars in all of the senior institutions in a region. At the same time, it should provide a resource that would relieve both the scholar and the practitioner of some of the burden of replication of data collection that is characteristic of contemporary endeavors to study the phenomena of continuing education.

Data Dissemination

The system should function to provide effective access to data by both users and providers of continuing education.

Our experiences in this regional study indicate that the library system could be an important link in the system. Librarians have expressed commitment to the support of adult independent learning, but profess need for information about programs and need for more knowledge about how to counsel the adult learner. If the regional information management system were to address these needs, the library system could be an important adjunct in overcoming the general need for information documented in the needs assessment data set forth earlier in this report.

During the course of our regional studies, we have become closely associated with an attempt by secondary and postsecondary administrators to develop a sub-regional mechanism for program planning and articulation. As the administrators in Onondaga, Cayuga, Tompkins, Oswego and Cortland Counties (OCTOC) with the assistance of their professional planners, have wrestled with the problems of developing a five year comprehensive regional plan, they have used our demographic data, needs data, and have called for our assistance with the identification of other necessary data. The regional information management system could both stimulate and support such sub-regional efforts to plan and articulate. This leads to a wry observation that the need for a regional information management system becomes more apparent when such attempts at planning and articulation are undertaken. Ipso facto, the development of a regional information management system will be an evolutionary process.

Application

At the local level of program application the System could provide support through demographic information necessary for targeting special group interests and needs; economic studies for guidance in determining cost/effectiveness and cost/benefits; information about adult learner characteristics to enable more effective local programming within a sub-regional plan.

Depending upon the level of sophistication to which the system is developed, the kinds and amounts of data that could be generated are almost limitless. The governing questions would be: who wants it?

who needs it? and, is it cost feasible to gather, manage and disseminate it?

Individual applications would vary from identification and selection of single learning opportunities to the assemblage of a number of formal learning experiences from several institutions to realize the requirements of job certification, high school equivalency or a Regents external degree. The individual's options and opportunities could be multiplied by knowledge of what is available within the time and resources that could be committed.

Feedback

The maintenance of continuous feedback would be essential to the longterm operation of the system. Part of this feedback would be provided by the continuous nature of the formal data gathering function. Certain types of data dissemination, e.g. directories and manpower information, would be cyclical and require periodic formalized data gathering. Formal needs assessments and demographic studies, while cyclical would not be repeated on a short time line.

Informal feedback would induce a response through reanalysis of data already in the system or the generation of special projects for preparation of policy and planning studies and reports.

Governance

Governance of the system could be by a regional council of users. Such a council should include representation from all of those groups involved in the application function. A professional manager could serve as executive officer responsible to the regional governing council.

It would be the function of such a council to provide services in support of the efforts of providers and participators. The council would not have the power to infringe upon local and/or institutional autonomy. Decisions as to Institutional roles and programs would be negotiated by consensus through sub-regional planning mechanisms created by the agencies and institutions within those sub-regions.

Coordination of this regional system with other regional systems and with the data management systems in the State Education Department and other government agencies could be carried out through a similar state-level mechanism.

Next Steps

The project staff and their advisors recognize that at this stage there are voids and ambiguities in this proposed Regional Continuing Education Information Management System. Perhaps it should be left deliberately so. The next step would seem to be the mounting of a pilot effort toward implementation. The problems of voids and ambiguities could be worked out in the crucibles of practice. This then, is the first step toward invention of a system. An attempt to provide a catalyst to provoke a rational effort directed toward creation of a comprehensive coordinated state-wide system of post-secondary continuing education.

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APPENDIX A

NEEDS ASSESSMENT

INTERVIEW INSTRUMENT

Interview

Cornell Continuing Education Study

Needs Assessment

Introduction

Hello. My name is ________________. I'm helping with a Cornell University project to find out what educational needs people in this county have, so that education programs for adults can be better planned.

We think the best way to find out what education programs are needed is to go out and get suggestions from the people. You were selected as someone who could be of help and I would appreciate being able to talk with you for a few minutes.

Instructions to Interviewer

Seeking the person's name may be threatening. We will simply code interviews unless the name is voluntarily given in conversation. Through preliminary conversation establish the fact that you are interested in the interviewee and that you value his/her suggestions. A convenient way to lead into the interview is to ask about the person's job (if employed).

1. Vocational Development and Basic Education

   a. What is it that you work at? ____________________________

   b. Have you been employed at this long? (conversational)

   c. Do you ever find there are things which could help you in your work, if you could learn more about them? (Let the interviewee talk freely; then, if necessary hand Card I to him/her, saying, "Here is a list of some subjects connected with jobs that people sometimes study; do you see anything here of interest to you?"

   ____

   ____

   (Record interests as specifically as possible.)

2. Home and Family Living

   Aside from subjects which might help you in your work, can you think of anything you might like to learn about which would help in everyday life? (Let the interviewee talk freely; then, if necessary, hand Card II to him/her, saying, "Here is a list of some subjects connected with home or family living that people sometimes study; do you see anything here of interest to you?"

   ____

   ____

   (Record interests as specifically as possible.)

3. Hobbies and Recreation

Are there hobbies that you would like to learn more about? (Let the interviewee talk freely; then, if necessary, hand Card III to him/her, saying, "Here is a list of some things connected with hobbies or recreation that people sometimes learn about; do you see anything here of interest to you?"

____

____

(Record interests as specifically as possible.)

4. Personal Development

Can you think of anything you would like to learn more about, just for the sake of your own development as a person? (Let the interviewee talk freely; then, if necessary, hand Card IV to him/her, saying, "Here is a list of some things which people sometimes study for personal development; do you see anything here of interest to you?"

____

____

(Record interests as specifically as possible.)

5. Public Affairs

Might you be interested in learning about anything that would help you be a better informed citizen? (Let the interviewee talk freely; then, if necessary, hand Card V to him/her, saying, "Here is a list of some things connected with being a better citizen; do you see anything here of interest to you?"

____

____

(Record interests as specifically as possible.)

6. Religion or Ethics

Might you be interested in learning more about the Bible, other religions, or ethics?

____

____

(Record interests as specifically as possible.)

7. General Education

Can you think of anything else you might like to learn more about? (Let the interviewee talk freely, then hand Card VII to him/her, saying, "Here are some general subjects that people sometimes study; do you see anything here of interest to you?"

____

____

(Record interests as specifically as possible.)

8. Learning Priority

Let's go back now for a minute and look at the things you said you would like to learn more about. (Interviewer read the subjects listed by interviewee.) Which one of these would you most like to learn about? ____________________

9. Would you like to get credit toward some type of certificate, or diploma, or degree for learning in this subject area?
No__________ Yes__________

Examples for Interviewer, if Needed:

a.______Certificate?

b.______Credit toward high school diploma?

c.______Credit toward a license?

d.______Credit toward a two-year degree?

e.______Credit toward a four-year degree?

f.______Credit toward an advanced degree?

10. There are many ways in which people can take a course. How would you prefer to learn, if you could do it any way you wanted?

____

Examples for Interviewer, if Needed: Lecture, Workshops, Tutoring, Travel-Study, On-the-Job, Correspondence, Audio/Visual, Independent Study, Group Project.

11. Just as there are many ways of taking a course, there are several places where a course could be conducted. If you could decide where a course you wanted to take would be held, where would you choose? ____________________

Examples for Interviewer, if Needed: Public School, College, Business Site, Library, Home, Church, YMCA

12. There is, of course, a limit to the amount of time people can spend in attending classes, or studying on their own. If you were studying something you wanted, how much time per week would you be willing to put in? ______________________

Examples for Interviewer, if Needed: One hour, two hours, three hours, four hours.

13. If you were spending time on a course each week, how would you prefer that the course be organized? That is, would you prefer to meet:

______Once per week?

______Twice per week?

______More than twice per week?

14. How long would you be willing to continue participating in a course you might like to take? ______________________

Examples, if Needed:

______Less than One Month?

______One to Six Months?

______Six Months to a Year?

______One to Two Years?

______More than Two Years?

15. If there were a charge for taking a course you wanted, how much would you be willing to pay? __________

Examples for Interviewer, if Needed:

______Nothing

______Less than $50

______Between $50 and $100

______Between $100 and $200

______More than $200

16. I'd like to think again about the thing you'd most like to study. Would you think about it for a minute and then tell me why it would be important to you to study in that subject area?

____

Examples, if Needed: Help get a job; advance in job; personal satisfaction; meet requirements to get into an education program; be a better parent; work toward certification; be a better citizen; get away from everyday routine, etc.

17. Many things keep people from taking courses or learning a skill, and from the point of view of providing courses, it is important to know what these are. Can you think of things which might keep you from taking a course you would like to? __________

____

Examples, if Needed: Cost, Time, Place, Child Care, Transportation, Red Tape, Age, Entrance Requirements, Not Offered, Exams, Studying with Younger People, Lack of Confidence, Social Pressure, Lack of Information.

18. People often need information and advice before beginning a course of study. Some people find it most helpful to talk with a professional counselor, others would prefer to talk with a friend or employer. With whom, if anybody, would you want to discuss a course? ______________________________

Examples, if Needed: Counselor at school or college, counselor at government agency, employer, friends, etc.

19. Who would you go to to find out about courses available?

____

20. Who would you go to to find out about employment possibilities as a result of training that you might take? __________

21. Do you know about adult education courses in this area? Yes_____

No_____

To Interviewer: If Yes, "how do you know?"__________

Examples, if Needed: Bulletins, Newspapers, Radio, T.V.

22. Would you like to be kept better informed? _____Yes_____No

23. How do you think colleges, BOCES, and other adult education providers could best keep people in the area informed about courses available?______________________________

____

24. In your opinion, why don't more of the adults you know take courses? ____

____

25. (To be asked if interviewer has not already found out from discussion.)

Tell me, have you ever taken adult education courses?

_____Yes _____No. Interviewer--If Yes, Where?___________

When?____________________ What?____________________

26. Would you mind giving me an idea as to the amount of formal education you have had?

_____8 years or less
_____Some High School
_____High School completed
_____Business or Trade School
_____Some college
_____College completed
_____Some graduate school
_____Graduate school completed

27. If you could have the opportunity would you be interested in getting any type of diploma or degree?

_____High School
_____Two-Year College
_____College
_____Graduate School

28. Would you mind telling me your age?

_____18 to 25
_____25 to 35
_____35 to 50
_____Over 50

29. Could I get an approximate indication of your income? For example, could you tell me if it is:

_____$5000 or less
_____$5000 to $7000
_____$7000 to $10,000
_____Over $10,000

30. If interviewer has not learned from discussion -- Are you married?

______Yes

______No

______How many children do you have?

I sincerely appreciate your cooperation, and I know your answers will be of much help as we get a better picture of what people in the area want. It's been gook talking with you. Would you like to ask me any questions?

Interviewer Notes:

Sex:

______Male ______Female

Race:

______White ______Other

Location:

______Rural ______Urban

County ____________________ Township ____________________________

Special Notes:

DR/pas
1/16/74

APPENDIX B

LEARNING RESOURCES
SURVEY INSTRUMENTS

1. INSTITUTIONS OF HIGHER EDUCATION
2. OTHER EDUCATIONAL INSTITUTIONS
3. ORGANIZATIONS AND AGENCIES
4. BUSINESS AND INDUSTRIAL FIRMS

CENTRAL REGION CONTINUING EDUCATION STUDY
CORNELL UNIVERSITY

Survey of Adult and Continuing Education Programs, Courses and Activities

The information in this questionnaire is being collected as part of a research study on continuing education in the central New York region through a grant of Federal funds under Program Impact of the Higher Education Act of 1965, Title I: Community Service and Continuing Education. This project is intended to provide data on learning needs and resources in the region to assist in planning future continuing education programs and services for students.

GENERAL INFORMATION

1. Name of Institution ____________________
2. Business Address ____________________
   number and street
   ____
   City   Zip Code   County
3. Telephone -- Area Code ______ Local Number ______ Extension, if any ______
4. What office at this institution has responsibility for administering adult/continuing education programs and courses?

   Office ____________________
   Name of Director or Administrator ____________________
   Administrator's Title ____________________
5. At what primary locations (other than the main campus or business address of the institution) are continuing education learning activities conducted? Include learning activities offered at branch or satellite campuses, industrial plants, cultural centers, public school buildings, etc.

   ____
   Place   Address
   ____
   ____
6. What are the principal methods used to recruit adult or continuing education students at this institution? Check those methods which you use most.

   ____ No active recruitment of adult/continuing education students
   ____ Literature available on request (catalogs, pamphlets, etc.)
   ____ Special mailings
   ____ Newspaper advertisements
   ____ Broadcast (radio & TV) advertisements
   ____ Contact persons or representatives in business, industry, labor and occupations
   ____ Employment counselors
   ____ Special services for adult/continuing educ. students (low fees, counseling, etc.)
   ____ Other (please specify) ____________________

(3/1/74)

7. Which methods of student recruitment are determined to be most effective in reaching adult/continuing education students at this institution? Please describe briefly.

8. Are adult/continuing education students eligible for financial aid at this institution?

____ No

____ Yes

Which of the following types of financial aid are available? Check all which apply.

____ loans

____ scholarships, grants

____ work-study employment

____ other (please specify) ____________

9. Which of the following support services are available to adult/continuing education students at this institution? Check all which apply.

____ career counseling

____ placement

____ educational (academic) counseling

____ personal and social counseling

____ health services

____ library services

____ tutoring or remedial education

____ day care

List any special requirements or limitations on adult/continuing education students' use of such services; e.g. extra fee, availability to part-time students, etc.

10. Approximately how many students (head count) were enrolled in adult/continuing education activities at this institution last year?

	# Enrolled (Head Count)	FTE Students
Fall Semester 1973		
Spring Semester 1973		
Total 1973		

11. Check one of the following responses in relation to the student totals reported in Question 10. This total includes

____ students in both credit and non-credit learning situations

____ students in credit-bearing learning activities only

____ other (please explain) ____________

12. If the total reported in Question 10 included only students in credit-bearing learning activities were there any adult/continuing education students enrolled in non-credit activities?

____ Yes (approximately how many ______ ?) ____ No

13. What method of transportation is used by most of the adult/continuing education students at this institution?

____ car ____ walk

____ bus ____ other (please specify) ________________

14. Is public transportation to and from this institution available?

____ yes, daytime only ____ no, none is available

____ yes, day and evening both ____ other (please specify) ____________

____

15. Does this institution award credit to continuing education students for assessment and experience from the following sources? Check the sources which apply.

____ CLEP ____ CPEP ____ USAFI

____ other standardized external examinations (please specify) ______________

____

____ credits awarded by other colleges or educational institutions for passing standardized tests

____ institutional proficiency or equivalency tests

____ oral examinations or interviews by the institution

____ other institutional assessment (please specify) ____________________

____

____ work experience

____ other experience or non-course work, e.g. travel, community service, etc.

16. How much credit is a student permitted to earn toward a degree by examination or special assessment?

____ no credit allowed ____ credit allowed up to ____________

____ no limit on credit by examination ____ other (please specify) __________

____

17. How are new courses and programs for continuing education students originated at this institution? Please describe briefly. ______________________

____

____

18. What is the chief source of funding for adult/continuing education programs and courses at this institution?

____ self-sustaining through student tuition, fees and grants

____ foundation or other outside grants

____ institutional subsidy

____ other (please specify) ____________________

19. Who make up the faculty for adult/continuing education learning activities at this institution? Check one response for each of the groups below.

	50% or more of a/ce faculty	Less than 50%	None
Regular faculty of the institution	____	____	____
Separate adult/continuing education faculty	____	____	____
Special faculty (instructors from community, professions, business & industry, arts, etc.	____	____	____

20. What is the present policy of the institution toward increasing or enlarging its participation in adult/continuing education learning activities?

____

____

____

____

21. What type(s) of information would be most helpful to this institution in making decisions about and/or implementing adult/continuing education learning activities?

____

____

____

____

22. Person who supplied information for this section of survey

Name ____

Title ____

PROGRAMS AVAILABLE TO ADULT/CONTINUING EDUCATION STUDENTS

As part of the survey of educational resources, it is necessary to know what programs your institution offers to the continuing education student. Please complete the following section for each such program you offer. Please use additional copies of Section II as needed.

CENTRAL REGION CONTINUING EDUCATION STUDY
CORNELL UNIVERSITY

Section II: Programs Available to Adult/Continuing Education Students

For this survey, a program is defined as a set of learning activities (courses or similar instructional activities) designed for the adult/continuing education student which may (but not necessarily) lead to the award of a certificate, diploma or degree. Do not include programs which are open only to full-time day students. Examples are: part-time baccalaureate or associate degree programs, programs of study in specific subject areas, short or concentrated study programs, occupational or vocational skill programs, etc.

1. Name of Program ____________________

2. Administrative unit offering program ____________________

____

3. Director or person in charge of administration of program

Name ____________________

Title ____________________

4. What type of award or recognition is given for the completion of this program?

____ None, not a certificate or degree program

____ High school diploma or equivalent

____ Certificate of attendance or completion

____ Associate degree only

____ Bachelor's degree only

____ Graduate or professional degree only

____ Other (please specify) ____________

5. Is this program accredited by any specialized accrediting agency or agencies?

____ Yes ____ No

If yes, what agency or agencies have recognized this program? List all which apply.

____

6. What is the primary location of the learning activities in this program?

Address ____________________

Is this location: (check one)

____ main campus of 2 or 4 year college or university

____ branch campus or satellite campus of above?

____ public high school or elementary school building?

____ community center or agency

____ library

____ business or industrial site?

____ other? (Please specify)

____

7. Which of the following are admissions criteria for participation in this program?

____ none

____ minimum age (specify) _______

____ minimum education (specify) ________________________________

____ sex

____ ethnic background

____ low socioeconomic background

____ satisfactory scores on standardized examinations

____ certain rank in high school class

____ particular occupational experience

____ personal interviews

____ location of residence

____ other (please specify) ____________ ____________________________________

8. What is the general purpose or focus of this program?

____ occupational skills or techniques

____ general education or liberal studies

____ leisure time/recreation activities

____ personal development (public speaking, speed reading, etc.)

____ home and family living

____ public affairs (citizenship, government, community affairs, consumer education, etc.)

____ other (please specify) _____________ ____________________________________

9. Is this program directed at a special clientele or at the general public? Check one.

______ special group _____ general public

If special group, indicate which of the following groups are the major focus of this program. Check all that apply.

____ special occupational group

____ disabled/physically handicapped

____ unemployed or economically disadvantaged

____ elderly/retired

____ working adults

____ independent learners (explain) ____ ____________________________________

____ Veterans

____ military personnel

____ people confined at home or beyond commuting distance

____ women

10. What is the approximate tuition cost of this program to the student?

$________ per credit / semester / course (circle one)

$________ other

11. What are the approximate other costs of this program to the student? Include all which apply.

$ __________ college fees

$ __________ lab fees

$ __________ books or written materials

$ __________ special equipment or supplies

12. When is instruction in this program scheduled?

____ daytime ____ weekends

____ late afternoon and evening ____ other (please explain) ____________

14. Enrollment information:

Registration dates ____

Length of program (please describe how long it takes a student to complete the program. Include number of semester hours or number of semesters, if appropriate.)

____

15. Person who supplied information for this section of survey

Name ____

Title ____

CENTRAL REGION CONTINUING EDUCATION STUDY
CORNELL UNIVERSITY

Courses Available for Adult/Continuing Education Students

The information in this questionnaire is being collected as part of a research study on continuing education in the central New York region through a grant of Federal funds under Program Impact of the Higher Education Act of 1965, Title I: Community Service and Continuing Education. This project is intended to provide data on learning needs and resources in the region to assist in planning future continuing education programs and services for students.

In order to obtain complete information on continuing education resources it is necessary to inventory continuing education courses which are currently being provided for learners. For the purposes of this survey, a continuing education course may be defined as any planned educational activity, either credit or non-credit. Please include the following:

1) Courses designed specifically for the adult/continuing education learner. These may be offered at any time of day and include courses of any length. (Include workshops, minicourses, institutes, etc. whether or not they are listed in the college catalog.)

2) Courses which are part of the regular educational program of the institution but are open to adult/continuing education students and offered at times convenient to these learners (e.g. late afternoon or evening).

Please complete the following questions for each adult/continuing education course at this institution.

1. Name of course ______________________________

2. Main purpose or focus of course:

   ____ Occupational skills or techniques
   ____ General education or liberal studies
   ____ Leisure time/recreation activities
   ____ Personal development (public speaking, speed reading, etc.)
   ____ Home and family living
   ____ Public affairs (citizenship, government, community affairs, consumer education
   ____ Other (please specify) ____________

3. Is this course (check one) ____ credit? ____ non-credit?

   a) If credit, how many credit hours? ____________________
   b) Is this credit transferable or applicable toward a degree? ____ yes ____ no

4. When does this course meet?

   a) Starting date ____________________
   b) Day(s) of week ____________________
   c) Hour or time of day ____________________

5. What is the length of this course?

   Total number of weeks ____________
   Total contact hours ____________

(3/1/74)

6. What are the approximate costs of this course to the student?

$ ____________ per credit / semester / course (circle one)

$ ____________ fee (s)

$ ____________ books and/or materials

7. Is this course aimed at any special clientele or groups? ____ yes ____ no, general public

If yes, which of the following groups are the major focus of this course?

____ special occupational group

____ disabled/physically handicapped

____ unemployed or economically disadvantaged

____ elderly/retired

____ working adults

____ independent learners (explain) ____

____

____ Veterans

____ military personnel

____ people confined at home or beyond commuting distance

____ women

8. Please list any special requirements or prerequisites for admission to this course.

____

____

____

9. What type of credit or recognition is given for the successful completion of this course?

____ None

____ Class credit only

____ Certificate of attendance or completion

____ Other (please specify)____________

____

10. What is the approximate or average class size?

____ 10 or fewer

____ 11 - 20

____ 21 - 30

____ 31 - 50

____ 51 or larger

11. What is the primary method of instruction used in this course?

____ classroom lecture

____ tutorial

____ programmed instruction

____ computer-assisted instruction

____ tape cassette

____ closed circuit TV

____ field work or cooperative work study

____ correspondence/home study

____ other (please specify) ____

12. What is the approximate level of instruction of this course?

____ adult basic education

____ secondary (high school completion)

____ postsecondary (college introductory level)

____ postsecondary (college advanced level)

____ college/university postgraduate level

____ level not applicable

____ other (please specify) __________

____

13. Where does this course meet?

____

Place Address

Is this location (check one)

____ main campus of 2 or 4 year college or university?

____ branch campus or satellite campus of above?

____ public high school or elementary school building?

____ community center or agency?

____ library

____ business or industrial site?

____ other? (please specify) ______________________

14. Registration date(s) ______________________

15. Instructor ________ ______________________

16. Person who supplied information for this section of survey.

Name ______________________

Title ______________________

CENTRAL REGION CONTINUING EDUCATION STUDY
CORNELL UNIVERSITY

Survey of Adult and Continuing Education Programs, Courses and Activities

The information in this survey is being collected as part of a research study on continuing education in the central New York region through a grant of Federal funds under Program Impact of the Higher Education Act of 1965, Title I: Community Service and Continuing Education. This project is intended to provide data on learning needs and resources in the region to assist in planning future continuing education programs and services for students.

GENERAL INFORMATION

1. Name of School ______________________________

2. Business Address ______________________________
(number and street)

____
City Zip Code County

3. Telephone--Area Code _____ Local Number __________ Extension, if any _____

4. What office at this school has responsibility for administering adult/continuing education programs and courses?

Office ______________________________

Name of Director or Administrator ______________________________

Administrator's Title ______________________________

5. At which of the following locations are your adult or continuing education courses or programs presently held?

_____ at the school address listed above only

_____ at other locations as needed (specify)

____
Place Address

____

____

6. What are the principal methods used to recruit adult or continuing education students at this institution? Check those methods which you use most.

_____ No active recruitment of adult/continuing education students

_____ Literature available on request (catalogs, pamphlets, etc.)

_____ Special mailings

_____ Newspaper advertisements

_____ Broadcast (radio & TV) advertisements

_____ Contact persons or representatives in business, industry, labor and occupations

_____ Employment counselors

_____ Special services for adult/continuing education students (low fees, counseling, etc.)

_____ Other (please specify)

____

____

7. Which methods of student recruitment are determined to be most effective in reaching adult/continuing education students at your school? Please describe briefly.

____

____

____

____

8. What support or special services are available to adult or continuing education students at your school? Include counseling (career, educational, personal), placement, library, day care, lower tuition for special groups, remedial work, etc.

____

____

____

____

9. Approximately how many people were enrolled during the past year in adult or continuing education activities in your school?

Fall semester 1973 _____

Spring semester 1974 _____

Total _____

10. How are new courses and programs for continuing education students originated at your school? Please describe briefly.______________________________

____

____

____

11. What is the chief source of funding for the adult/continuing education program at your school?

_____ self-sustaining through student tuition, fees and grants

_____ foundation or other outside grants

_____ institutional subsidy

_____ other (please specify)

____

12. Who make up the faculty for the adult/continuing education learning activities at this school? Check one response for each of the groups below.

	50% or more of a/ce faculty	Less than 50%	None
Regular faculty of the institution	_____	_____	_____
Special faculty (instructors from community, professions, business & industry, arts, etc.)	_____	_____	_____

13. What is your present policy toward increasing or enlarging participation in adult/continuing education learning activities?

____

____

____

____

14. What type(s) of information would be most helpful to your school in making decisions about and/or implementing adult/continuing education learning activities? Check any of the following areas about which information is needed.

Potential audiences

_____needs or interests
_____potential numbers

_____location
_____ability to pay
_____ability or willingness to travel outside immediate community
_____how to attract
_____other____

Teachers of Adult Education

_____how and where to recruit
_____training
_____teaching methods suitable to adults
_____other____

_____Teaching Methods

Subject Matter Content for Courses

_____name any special areas of interest_______________________

____

____

Finances

_____sources of funds
_____writing grant proposals for funds
_____charging for courses
_____other____

Facilities & Equipment

_____classroom space
_____new teaching equipment
_____other____

Relationships with Other Organizations or Agencies

_____possible cooperation
_____possible competition or rivalry
_____other____

_____Philosophy of Adult Education

_____Policies of Adult Education

_____Administration of Adult Education

_____Evaluation of Program and Outcomes

15. Person who supplied information for this section of survey

Name____

Title____

PART II: Please complete the following information in reference to adult/continuing education courses or learning activities. Include those courses and activities offered since January 1, 1974.

Name of Course or Program (offered since Jan 1, 1974)	Usual Meeting Time: Day(s) of week and hours (e.g., T & Th, 7 to 9 p.m.)	Length of Course: Total No. of Weeks	Approximate Cost to Participant	This Course is Offered:		Number of Persons Enrolled
				Regularly	As Needed	

CENTRAL REGION CONTINUING EDUCATION STUDY

CORNELL UNIVERSITY

Note to person contacting the organization: Please complete the following information.

Your Name ______________________________

Address ______________________________
street city

Phone No. ( ) ______________________________
area number

General Information

To Interviewer: You may be able to complete items #1 to #5 below before you call the organization.

1. Name of Organization ______________________________

2. Business Address

   a. County ______________________________

   b. City or Town ______________________________

   c. Street ______________________________

   d. Zip Code ______________

3. Telephone -- Area Code ________ Local Number __________ Extension ______

4. Name of director or administrator of organization or contact person:

____
Name Title

5. What is the main purpose of this organization? (Check the one major purpose)

_____ a) community service

_____ b) educational and/or cultural

_____ c) fraternal

_____ d) health

_____ e) professional or occupational

_____ f) religious

_____ g) social or recreational

_____ h) governmental

When you reach the contact person by phone, explain briefly that you are helping Cornell University with a survey of adult educatior (or continuing education) in ________________ county. Ask the person if it is convenient to spend a few minutes on the phone.

Then explain that the complete project includes a study of needs for adult education and of courses available in ____________ county, but that you are gathering data only on courses offered by civic, fraternal, or community service organizations or by agencies of local government.

Make the questions as conversational as you wish.

6. Does your organization offer any adult or continuing education programs or courses?

_____ yes _____ no (If no, skip to Question 9)

If yes, are these open to: (check any which apply)

_____ a) general public

_____ b) membership only

_____ c) specialized audiences (specify ______________________)

_____ d) paid staff

_____ e) volunteer workers in this organization

7. If answer to Question 6 was Yes, approximately how many people were enrolled, during the past year, in the adult/continuing education activities for:

Approximate Enrollment

a) general public __________

b) membership only __________

c) specialized audience(s) __________

d) paid staff or volunteer workers __________

8. At which of the following locations are your adult or continuing education courses or programs presently held?

_____ a) At the headquarters or business address of the organization only.

_____ b) At both organization headquarters and other locations as needed.

_____ c) Entirely at other locations.

If answer is b) or c) above, which of the following sites are now used for your adult or continuing education activities? (Check all which apply.)

_____ public schools

_____ other educational institutions (two and four year colleges, universities, BOCES, etc.)

_____ libraries, museums, or cultural centers

_____ community centers

_____ business or industrial sites

_____ churches, church halls

_____ any other available meeting facilities (please specify ________________)

9. Is the present policy of your organization (check one):

_____ a) to begin offering adult/continuing education learning activities (if such activities have not been offered).

_____ b) to offer more adult/continuing education learning activities than in the past.

_____ c) to continue at about the same level as in the past.

_____ d) to decrease your offerings

Ask the following question and use the space provided to make notes regarding the answer given. Then ask the organization representative if he or she can help you organize the information under the headings provided.

10. What type(s) of information would be most helpful to your organization in making decisions about and/or implementing adult/continuing education learning activities?

____

____

____

____

Classification--the organization needs information about (check any which are indicated by the representative).

_____ a) Potential audiences

- _____ aa) needs or interests
- _____ bb) potential numbers
- _____ cc) location
- _____ dd) ability to pay
- _____ ee) ability or willingness to travel outside immediate community
- _____ ff) how to attract
- _____ gg) other ________________________

_____ b) Teachers of Adult Education

- _____ aa) how and where to recruit
- _____ bb) training
- _____ cc) teaching methods suitable to adults
- _____ dd) other ________________________

10. (continued)

_____ c) Teaching methods

_____ d) Subject matter content for courses

_____ aa) name any special areas of interest ____________________

____

_____ e) Finances

_____ aa) sources of funds
_____ bb) writing grant proposals for funds
_____ cc) charging for courses
_____ dd) other ____

_____ f) Facilities & equipment

_____ aa) classroom space
_____ bb) new teaching equipment
_____ cc) other ____

_____ g) Relationships with other organizations or agencies

_____ aa) possible cooperation
_____ bb) possible competition or rivalry
_____ cc) other ____

_____ h) Philosophy of adult education

_____ i) Policies of adult education

_____ j) Administration of adult education

_____ k) Evaluation of program and outcomes

Ask the following question and use the space provided to make notes regarding the answer given. Then ask the organization representative if he or she can help you organize the information under the headings provided.

The question: Are there any training needs of your staff (paid or volunteer) which you are not now able to meet?

____

____

____

____

11. (continued)

Classification:

Do these needs relate to:

_____ a) teaching skills
_____ b) understanding adult needs and learning
_____ c) organization management
_____ d) goal setting and educational objective
_____ e) working relationships
_____ f) other ____

12. COMMENTS: Please add any other comments about the organization, programs, needs, etc. which might be helpful.

____
____
____
____
____
____
____
____

13. Does your organization publish a brochure or printed announcement about the continuing education courses you offer?

____ yes ____ no ____ does not provide continuing education courses

If yes, ask if a copy of this material could be mailed to:

Helen Veres
Continuing Education Project
Stone Hall
Cornell University
Ithaca, N.Y. 14850

Instructions For Part II

Please complete the information on the attached form in reference to the adult or continuing education courses of the organization.

Part II: To be completed for those organizations offering adult or continuing education courses or learning activities. Include activities offered since January 1, 1974.

Name of Course or Program (offered since Jan 1, 1974)	Usual Meeting Time: Day(s) of week and hours (e.g. T & Th, 7 to 9 p.m.)	Length of Course: Total No. of Weeks	Approximate Cost to Participant	This Course is Offered:		Number of Persons Enrolled
				Regularly	As Needed	

CENTRAL REGION CONTINUING EDUCATION STUDY

CORNELL UNIVERSITY

General Information

1. Name of company or firm____

2. Business Address____

Number and Street

____

City Zip Code County

3. Telephone -- Area Code_______ Local Number____________________

Extension, if any________________

4. What are the main product(s) and/or service(s) provided by this firm?

____

____

5. Total number of employees____________________

6. Approximately how many employees are included in each of the following categories:

	Number of Employees
Professional, technical & managerial	________________
Clerical	________________
Sales	________________
Craftsmen	________________
Operatives	________________
Service	________________
Laborers	________________

7. In your opinion, what type of program or course content (for example, various occupational skills, employee development, etc.) do you think would be most useful and/or needed by present or potential employees in this company? Please indicate employee needs according to employee categories.

Category	Training Need(s)
Professional, technical & managerial	
Clerical	
Sales	
Craftsmen	
Operatives	
Service	
Laborers	

8. What significant change(s), if any, are likely to take place in the type of skills or employee training needed by your firm over the next five years? This includes skills which may decrease in importance as well as those in which increases are expected.

9. Does this firm provide financial assistance or reimbursement for tuition and fees to employees enrolled in educational activities?

_______Yes _______No

If Yes, please describe the conditions under which financial assistance is given. (For example, the course or educational activity must be job-related, etc.) It would be especially helpful if you would attach a copy of any written materials regarding such policies.

____

____

____

____

____

10. What incentives (other than financial assistance) are offered to employees to encourage enrollment in adult/continuing education activities? (For example, release time from job to attend class, special consideration for promotion, etc.)

____

____

____

____

11. Does this firm provide its own educational or training program for employees?

______Yes _____ No

If Yes to question 11, please complete A and B. See also Part II of survey.

A. Which of the following types of training are provided? Check all which apply.

_____ on-the-job training

_____ formal orientation program(s) for new employees

_____ "in-house" courses or learning activities

_____ special courses or learning activities provided under cooperative or contractual arrangements with a local educational institution

_____ other. Please specify.______________________________

B. Approximately how many employees were participants in your training program during the

last half of 1973? ____________

first half of 1974? ____________

12. Approximately how many of your employees have attended adult or continuing education classes during the

last half of 1973 (Fall semester)?__________

first half of 1974 (Spring semester)?_______

13. Does this firm have cooperative arrangements with any educational institution(s) (for example, community colleges, colleges or universities, BOCES, etc.) to provide training for your employees?

_______Yes ______No

If Yes, what are these institutions and courses involved?

Institution	Name of Course

Person who supplied information for this survey:

____

Name Title

PART II. To be completed by those firms offering employee training programs, courses, and/or learning activities. Include activities offered since January 1, 1974.

Name of Course or Program (offered since Jan. 1, 1974)	Usual Meeting Time: Day(s) of Week and hours (e.g., T & Th., 7 to 9 p.m.)	Length of Course, Total No. of Weeks	Approximate Cost to Participant	This Course is Offered		Number of Persons Enrolled in This Activity
				Regularly	As Needed	

APPENDIX C

CLASSIFICATION OF SUBJECT AREAS IN CONTINUING EDUCATION

CLASSIFICATION OF SUBJECT AREAS IN CONTINUING EDUCATION

01	00	00	AGRICULTURE AND NATURAL RESOURCES
	01	00	Agriculture, General
	03	00	Agricultural Business
	05	00	Agricultural Economics
	07	00	Agriculture and Forestry Technologies
		01	Farm Machinery
	09	00	Agronomy (Field Crops and Crop Management)
	11	00	Animal Science (Husbandry)
		01	Animal Health
		05	Genetics
		09	Livestock and Poultry
		13	Production Management
		99	Other
	13	00	Food Science and Technology
	15	00	Forestry (Production, Management, Marketing, Services)
	17	00	Horticulture (Fruit and Vegetable Production)
	19	00	Natural Resources (Conservation, Utilization and Services)
		01	Air
		05	Fish
		09	Forests
		13	Natural Resources Management
		17	Range Management
		21	Water
		25	Wildlife

03	00	00	ARCHITECTURE, ENVIRONMENTAL DESIGN AND PLANNING
	01	00	Architecture, General
	03	00	City, Community and Regional Planning
	05	00	Environmental Design, General
	07	00	Interior Design
	09	00	Landscape Architecture
	11	00	Urban Design
05	00	00	AREA STUDIES
	01	00	African Studies
	03	00	American Studies
		01	Latin American Studies
	05	00	Asian Studies, General
		01	East Asian Studies
		05	South Asian (India, etc.) Studies
		09	Southeast Asian Studies
	07	00	European Studies, General
		01	Eastern European Studies
		05	West European Studies
		09	Russian and Slavic Studies
	09	00	Islamic Studies
	11	00	Middle Eastern Studies
	13	00	Pacific Area Studies
07	00	00	BUSINESS, MANAGEMENT, AND SALES
	01	00	Business and Commerce, General
	03	00	Accounting and Bookkeeping
		01	Accounting Principles
		05	Accounting Systems
		09	Auditing

07	03	13	Bookkeeping, General
		17	Bookkeeping, Machine
		21	Bookkeeping, Payroll
		25	Bookkeeping, Other
		29	Cost Accounting
		33	C.P.A. Review
		37	Data Processing Accounting
		41	Governmental and Institutional Accounting
		45	Intermediate and Advanced Accounting
		49	Payroll Accounting
		53	Secretarial Accounting
		57	Tax Accounting
		61	Accounting, Other
	05	00	Advertising and Sales Promotion
		01	Advertising Principles
		05	Advertising Campaigns
		09	Advertising Copywriting
		13	Advertising Layout
		17	Advertising Media
		21	Advertising Production
		25	Direct-Mail Advertising
		29	Retail Advertising
		33	Retail Display and Sales Promotion
		37	Other Sales Promotion
	07	00	Banking and Finance
	09	00	Business Administration and Management
		01	Business Principles
		05	Business Organization and Management

07	09	09	Office Management and Supervision
		13	Small Business Management
	11	00	Business Arithmetic/Mathematics
	13	00	Business Communications
		01	Business Correspondence
		05	Report Writing
		99	Other Business Communications
	15	00	Business Economics
		01	Economics of Consumption
		05	Labor Economics
		09	Principles of Business Economics
		99	Other
	17	00	Business Law
	19	00	Business Machines
	21	00	Hotel and Restaurant Management
	23	00	Insurance and Risk
		01	Principles of Insurance
		05	Life Insurance
		09	Property and Casualty
	25	00	Investments and Securities
	27	00	International Business
	29	00	Labor and Industrial Relations
		01	Collective Bargaining
		05	Contract Administration
		09	Labor-Management Relations
	31	00	Marketing and Purchasing
		01	Marketing Research
		05	Marketing Analysis

07	31	09	Industrial Marketing
		13	International Marketing
		17	Principles of Marketing
		21	Purchasing
	33	00	Operations Research
	35	00	Personnel Management
		01	Employee Development
		05	Employment Practices
		09	Job Evaluation
	37	00	Public Relations
	39	00	Real Estate
		01	Real Estate Principles
		05	Real Estate Practices
		09	Real Estate Management
		13	Real Estate Law
		17	Real Estate Appraisal
		21	Real Estate Finance
		25	Real Estate Sales
	41	00	Retailing and Retailing Occupations
		01	Merchandise/Product Information
		05	Retail Buying
		09	Retail Display
		13	Retail-Merchandising (Selling)
		17	Retail Salesmanship
		21	Retail Store Management
		99	Other Retail Trade
	43	00	Salesmanship Principles

07	45	00	Secretarial Studies
		01	Shorthand
		05	Office Practice
		09	Typewriting
	47	00	Transportation and Public Utilities
09	00	00	COMMUNICATIONS
	01	00	Communications, General
	03	00	Advertising
	05	00	Communication Media (Use of Videotape, Film, etc., oriented specifically toward Radio/TV)
	07	00	Journalism (Printed Media)
	09	00	Radio/TV
11	00	00	COMPUTER, INFORMATION SCIENCES AND TECHNOLOGIES
	01	00	Computer and Information Sciences, General
	03	00	Computer Programming
	05	00	Computer Operator and Peripheral Equipment Operation Technologies
	07	00	Data Processing
	09	00	Data Processing Equipment Maintenance Technologies
	11	00	Information Sciences and Systems
	13	00	Key Punch Operator and Other Input Preparation Technologies
	15	00	Systems Analysis
13	00	00	EDUCATION
	01	00	Education, General
	03	00	Adult Basic Education
	05	00	Adult and Continuing Education

13	07	00	Career Education
	09	00	Curriculum and Instruction
	11	00	Educational Administration
	13	00	Educational Policy
	15	00	Educational Psychology (including Learning Theory)
	17	00	Educational Statistics and Research
	19	00	Educational Supervision
	21	00	Educational Technologies (includes CAI, AV)
	23	00	Educational Testing, Evaluation and Measurement
	25	00	Elementary Education, General
	27	00	Higher Education, General
	29	00	Junior and Community College Education
	31	00	Junior High School Education
	33	00	Pre-Elementary Education (Kindergarten)
	35	00	Remedial Education
	37	00	Secondary Education, General
	39	00	Social Foundations (History and Philosophy of Education)
	41	00	Special Education
	43	00	Student Personnel (Counseling and Guidance)
15	00	00	ENGINEERING AND ENGINEERING TECHNOLOGIES
	01	00	Engineering, General
	03	00	Aerospace, Aeronautical and Astronautical Engineering and Technology
	05	00	Agricultural Engineering and Technology
	07	00	Architectural Engineering and Technology
	09	00	Bioengineering and Biomedical Engineering and Technology
	11	00	Ceramic Engineering

15	13	00	Chemical Engineering (include Petroleum Refining) and Technology
	15	00	Civil, Construction and Transportation Engineering and Technology
	17	00	Electrical, Electronics and Communications Engineering
	19	00	Engineering Mechanics
	21	00	Engineering Physics
	23	00	Environmental and Sanitary Engineering and Technology
	25	00	Geological Engineering
	27	00	Geophysical Engineering
	29	00	Industrial and Management Engineering
	31	00	Materials Engineering
	33	00	Metallurgical Engineering
	35	00	Mining and Mineral Engineering
	37	00	Naval Architecture and Marine Engineering
	39	00	Nuclear Engineering
	41	00	Ocean Engineering and Oceanographic Technologies
	43	00	Petroleum Engineering (exclude Petroleum Refining) and Technology
	45	00	Textile Engineering
17	00	00	ENGLISH LANGUAGE ARTS
	01	00	English, General
	03	00	Composition
		01	Theory
		05	Writing
	05	00	English as a Foreign Languate
	07	00	Language Skills
		01	Reading

17	07	05	Proof Reading
		09	Speed Reading
		99	Other Language Skills (Spelling, Dictionary, etc.)
	09	00	Linguistics
		01	Grammar
		05	History of the English Language
		09	Phonology
		13	Semantics
	11	00	Literature
		01	American Literature
		05	Asian Literature
		09	English Literature
		13	European Literature
		17	Poetry
		99	Other
	13	00	Speech
		01	Oral Interpretation of Literature
		05	Rhetoric and Public Address
		09	Spedch Improvement
		13	Discussion and Conversation
	15	00	Study Skills
19	00	00	FINE AND APPLIED ARTS
	01	00	Fine Arts, General
	03	00	Art History and Appreciation
	05	00	Art Theory
	07	00	Art Studio, General
		01	Drawing

19	07	05	Painting
		09	Sculpture
		99	Other
	09	00	Cinematography
	11	00	Crafts, General
		01	Decoupage
		05	Leathercraft
		09	Metalwork and Jewelry
		13	Macrame
		17	Needlework (Knitting, Crocheting, Embroidery, Needlepoint, Crewel)
		21	Pottery and Ceramics
		25	Quilt Making
		29	Rug Making (Rya)
		33	Stained Glass, glass making
		37	Textiles (Spinning and Dying, Batik, Weaving)
		99	Other Crafts
	13	00	Dance, General
		01	Ballet
		05	Ballroom Dancing
		09	Belly Dancing
		13	Jazz Dancing
		17	Modern Dancing
		21	Square Dancing
		25	Tap Dancing
		99	Other Dancing
	15	00	Dramatic Arts
		01	Acting

19	15	05	Creative Dramatics
		09	Dramatic Literature
		13	Play Production
	17	00	Music History and Appreciation
	19	00	Music
		01	Composition
		05	Performing
		09	Theory
	21	00	Photography
21	00	00	FOREIGN LANGUAGES AND LITERATURE
	01	00	Foreign Languages, General
	03	00	Classical Languages, General
		01	Arabic
		05	Chinese
		09	Greek
		13	Hebrew
		17	Latin
		99	Other
	05	00	Modern Foreign Languages, General
		01	African Languages (Non-Semitic)
		05	Arabic
		09	Chinese
		13	French
		17	German
		21	Greek (Modern)
		25	Hebrew
		29	Indian (Asiatic)

21	05	33	Italian
		37	Russian
		41	Scandinavian
		45	Slavic Languages (other than Russian)
		49	Spanish
23	00	00	HEALTH, PHYSICAL EDUCATION AND RECREATION
	01	00	Health, General
		01	Community Health
		05	Consumer Health
		09	Disease Prevention and Control
		13	Environmental Health
		17	Family Life Education (include Sex Education)
		21	First Aid
		25	Harmful Substances (alcohol, drugs, etc.)
		29	Health Maintenance and Care
		33	Dental Health
		37	Foods and Nutrition (health related only)
		41	Personal Grooming
		45	Physical Fitness (weight control, dieting, slimnastics, figure control)
		49	Mental Health (self-confidence)
	03	00	Physical Education, General
	05	00	Physical Fitness (exercising, body dynamics)
	07	00	Individual and Dual Sports
		01	Archery
		05	Badminton
		09	Bowling
		13	Fencing

23	07	17	Golf
		21	Gymnastics
		25	Handball
		29	Squash
		33	Tennis
		37	Track and Field
		41	Wrestling
	09	00	Outdoor Recreational Activities
		00	Camping
		05	Car Racing
		09	Cycling (bicycle)
		13	Fishing
		17	Hiking
		21	Hunting and Trapping
		25	Ice Skating
		29	Motorcycling
		33	Parachute Jumping and Sky Diving
		37	Riding
		41	Riflery and Pistol Handling
		45	Skin and Scuba Diving
		49	Small Craft/Boating
		53	Snowmobling
		57	Snowskiing
		61	Surfing
		65	Swimming
		69	Waterskiing
		73	Wilderness Survival
		99	Other

23	11	00	Recreation (Leisure Time Pursuits)
	13	00	Hobbies
		01	Coin Collecting
		05	Magic
		09	Stamp Collecting
		13	Tropical Fish
		99	Other Hobbies
	15	00	Games
		01	Backgammon
		05	Bridge
		09	Other Card Games
		13	Chess
		99	Other Games
	17	00	Travel (include travelogues, planning travel)
	19	00	Self Defense
		01	Judo
		05	Karate
	21	00	Team Sports
		01	Baseball
		05	Basketball
		09	Cross Country
		13	Field Hockey
		17	Football
		21	Ice Hockey
		25	Lacrosse
		29	Rugby
		33	Soccer
		37	Softball

23	21	41	Volleyball
		99	Other
29	00	00	HEALTH PROFESSIONS, RELATED SERVICES AND TECHNOLOGIES
	01	00	Clinical Social Work
	03	00	Dentistry and Related Technologies
		01	Dentistry (D.D.S., D.M.D.)
		05	Dental Laboratory Technology
		09	Dental Hygiene
		13	Dental Assistant
	05	00	Hospital and Health Care Administration
	07	00	Inhalation Therapy Technologies
	09	00	Medicine (M.D.) and Medical Specialties
	11	00	Medical Technologies
		01	Medical Lab
		05	Medical Record
	13	00	Mortuary Science
	15	00	Nursing and Related Technologies
		01	Nursing, R.N.
		05	Nursing, Practical (L.P.N., L.V.N.)
		09	Nursing Assistant (Aide)
		99	Other Health Aides (Psychiatric, Home, School, etc.)
	17	00	Optical Technologies
	19	00	Pharmacy
	21	00	Public and Environmental Health
	23	00	Radiologic Technology (X-ray, etc.)
	25	00	Rehabilitation
		01	Occupational Therapy

25	25	05	Physical Therapy
		09	Prosthetics and Orthotics
	27	00	Speech Pathology and Audiology
	29	00	Veterinary Medicine and Related Technologies
27	00	00	HOME ECONOMICS, HUMAN AND FAMILY DEVELOPMENT
	01	00	Home Economics, General
	03	00	Clothing and Textiles
		01	Design and Fashion
		05	Sewing
		99	Other
	05	00	Consumer Education, General
	07	00	Food and Nutrition
		01	Food Preparation, General
		05	Cake Decorating
		09	Food Preservation, Canning and Freezing
		13	Gourmet Cooking
		17	Natural Foods
		21	Wine Making
		99	Other
	09	00	Housing, Furnishings and Equipment
		01	Home Decoration
		05	Home Furnishings
		09	Home Maintenance and Repair
		13	Housing
		99	Other
	11	00	Human Development, General
		01	Child Care and Development

27	11	05	Family Relationships
		09	Personal Development
		13	Retirement Planning
		99	Other
	13	00	Personal and Family Finance
		01	Budgeting
		05	Estate Planning
		09	Income Tax Preparation
		99	Other
29	00	00	INTERDISCIPLINARY STUDIES
	01	00	Biological and Physical Sciences
	03	00	Engineering and Other Disciplines
	05	00	Ethnic Studies
		01	American Indian Studies
		05	Black Studies
	07	00	General Liberal Arts and Sciences
	09	00	Humanities and Social Sciences
	11	00	Science Technology and Society
	13	00	Women's Studies
31	00	00	LAW
	01	00	Law, General
	03	00	Consumer Law
	05	00	Criminal Law
	07	00	International Law
33	00	00	LIBRARY AND INFORMATION SCIENCE
	01	00	Library and Information Science, General

33	99	00	Other
35	00	00	MATHEMATICS
	01	00	Mathematics, General
	03	00	Algegra
	05	00	Arithmetic
	07	00	Calculus
	09	00	Geometry
	11	00	Statistics
	13	00	Trigonometry
	99	00	Other
37	00	00	MILITARY SCIENCES
	01	00	Aerospace Science (Air Force)
	03	00	Military Science (Army)
	05	00	Naval Science (Navy, Marines)
	99	00	Other (specify)
39	00	00	NATURAL SCIENCES
	01	00	General Science
	03	00	Biological Sciences
		01	Anatomy
		03	Bacteriology
		05	Biochemistry
		07	Biology
		09	Biometrics and Biostatistics
		11	Biophysics
		13	Botany, General
		15	Cell Biology (Cytology, Cell Physiology)

39	03	17	Ecology
		19	Embryology
		21	Entomology
		23	Genetics
		25	Histology
		27	Marine Biology
		29	Microbiology
		31	Molecular Biology
		33	Neurosciences
		35	Nutrition, Scientific (exclude Nutrition in Home Economics and Dietetics)
		37	Pathology, Human and Animal
		39	Pharmacology, Human and Animal
		41	Physiology, Human and Animal
		43	Plant Pathology
		45	Plant Pharmacology
		47	Plant Physiology
		49	Radiobiology
		51	Toxicology
		53	Zoology, General
	05	00	Physical Sciences, General
		01	Chemistry, General (exclude Biochemistry)
		05	Analytical Chemistry
		09	Inorganic Chemistry
		13	Organic Chemistry
		17	Pharmaceutical Chemistry
		21	Physical Chemistry
		25	Earth-Space Sciences, General

39	05	27	Astronomy
		29	Astrophysics
		31	Atmospheric Sciences and Meteorology
		33	Geochemistry
		35	Geology
		37	Geophysics and Seismology
		39	Metallurgy
		41	Oceanography
		43	Paleontology
		45	Physics, General (exclude Biophysics)
		47	Molecular Physics
		49	Nuclear Physics
41	00	00	PUBLIC AFFAIRS, SERVICES AND CURRICULA
	01	00	City and Community Planning
	03	00	Community Services
	05	00	International Public Service (Other than Diplomatic Service)
	07	00	Law Enforcement and Corrections
	09	00	Parks and Recreation Management
	11	00	Protective Services
	13	00	Public Administration/Civil Service
	15	00	Social Work and Helping Services (other than Clinical Social Work)
	99	00	Other
43	00	00	PSYCHOLOGY
	01	00	Psychology, General
	03	00	Counseling and Clinical Psychology
	05	00	Developmental Psychology

43	07	00	Experimental Psychology (Animal and Human)
	09	00	Industrial Psychology
	11	00	Parapsychology and Psychic Phenomenon
	13	00	Physiological Psychology
	15	00	Psychometrics
	17	00	Social Psychology
	19	00	Statistics in Psychology
	99	00	Other
45	00	00	RELIGION AND THEOLOGY
	01	00	Bible Study or Religion Related Occupations
	03	00	Biblical Languages
	05	00	Comparative Religion (other religions)
	07	00	Philosophy of Religion (see also Social Sciences, Philosophy)
	09	00	Religious Education
	11	00	Religious History
	13	00	Religious Music
	15	00	Religious Studies
	17	00	Theological Professions, General
	99	00	Other
47	00	00	SAFETY
	01	00	Safety, General
	03	00	Firearms and Hunting
	05	00	Fire Safety
	07	00	Occupational Safety
	09	00	Traffic Safety (include Driver Education)
	11	00	Water Safety (include Lifesaving; power boating, etc.)
	99	00	Other

49	00	00	SOCIAL SCIENCES/SOCIAL STUDIES
	01	00	Social Sciences, General
	03	00	Anthropology
		01	Archaeology
		05	Cultural (Social) Anthropology
		09	Ethnography
		13	Ethnology
		17	Ethnoscience
		21	Physical Anthropology
		99	Other
	05	00	Economics
		01	Business and Industry Economics
		05	Comparative Economics
		13	History of Economic Thought
		17	Money and Banking
		21	National Income
		25	Principles of Economics
		29	Resource Economics
		99	Other
	07	00	Geography
		01	Historical Geography
		05	Human (Cultural) Geography
		09	Physical Geography
		13	Regional Geography
		99	Other
	09	00	History
		01	American History
		05	Local History

49	09	09	Modern History
		13	State History
		17	U.S. History
		21	Western Civilization
		25	Nonwestern Civilization
		29	World Civilization
		33	World History
		99	Other
	11	00	Philosophy
		01	Ethics
		05	History of Philosophy
		09	Introduction to Philosophy
		13	Logic
		17	Metaphysics
		21	Philosophy of Religion
		25	Personal Philosophies
		99	Other
	13	00	Political Science and Governement
		01	American Government
		05	Citizenship
		09	Comparative Systems
		13	Current Events
		17	International Relations
		21	Local Government
		25	Political Parties and Public Opinion
		29	Political Theory
		33	Public Policy
		99	Other

49	15	00	Sociology
		01	Community, The
		05	Demography
		09	Public Opinion and Political Sociology
		13	Socialization
		17	Social Organization
		21	Social Problems
		25	Social Stratification
		29	Social Theory
		99	Other
51	00	00	TRADE, INDUSTRIAL, SERVICE EDUCATION: OCCUPATIONAL AND OTHER SKILLS
	01	00	Air Conditioning, Refrigeration and Heating
	03	00	Airline Service Training
	05	00	Animal Caretaking, Training and Grooming
	07	00	Appliance Repair
	09	00	Automotive Service and Repair
		01	Auto Mechanics
		05	Body and Fender
	11	00	Aviation Operations
		01	Aircraft Operations
		05	Airline Mechanics and Repair
		09	Ground Operations
	13	00	Blueprint Reading
	15	00	Business Machine Maintenance
	17	00	Commercial Art Occupations
		01	Interior Decorating
		05	Product Design

51	17	09	Window Display
		99	Other
	19	00	Construction and Maintenance Trades
		01	Carpentry
		05	Electricity
		09	Glazing
		13	Masonry
		17	Painting and Decorating (include Wallpapering)
		21	Plastering
		25	Plumbing and Pipefitting
		29	Roofing
	21	00	Custodial Services
	23	00	Diesel Mechanics
	25	00	Drafting
	27	00	Electronics
		01	Communications (see also 09 00 00)
		05	Industrial Electronics
		09	Radio/TV
		99	Other
	29	00	Fabric Maintenance Services
		01	Drycleaning
		05	Laundering
		09	Pressing
	31	00	Floristry (Floral Design)
	33	00	Food Services and Quantity Food Occupations
		01	Baker
		05	Cook/Chef

51	33	09	Meat Cutter
		13	Waiter/Waitress
	35	00	Furniture Repair and Refinishing
	37	00	Graphic Arts
		01	Lithography
		05	Photoengraving
		09	Printing
		13	Silk Screen Making
	39	00	Heavy Equipment Maintenance and Operation
	41	00	Institutional and Home Services
	43	00	Instrument Maintenance and Repair
		01	Instruments
		05	Watchmaking and Repair
	45	00	Leatherworking
		01	Shoe Manufacturing
		05	Shoe Repair
	47	00	Machine Tool Operation
	49	00	Metalworking Occupations
		01	Blacksmithing
		05	Gunsmithing
		09	Locksmithing
		13	Sheet Metal Working
		17	Tool and Die Making
		21	Welding
		99	Other
	51	00	Maritime Occupations
	53	00	Ornamental Horticulture
	55	00	Personal Services

51	55	01	Barber
		05	Bartending
		09	Cosmetologist/Beauty Culture
		99	Other
	57	00	Small Engine Repair (includes motorcycles, power motors, lawn mowers)
	59	00	Surveying
	61	00	Textile Production and Fabrication
		01	Dressmaking (see also Home Economics
		05	Tailoring
		99	Other
	63	00	Truck Driving
	65	00	Upholstering
	67	00	Woodworking
		01	Millwork and Cabinet
		99	Other

INDEX

A

Age: distribution in Central Region, 11,22
  distribution of sample, 11-12
  relationship to continuing education participation, 45,46
  to learning interest, 62, 66
  barriers to learning, 77,78

B

Barriers to learning: general, 36-37
  for rural and urban adults, 70, 72, 73
  for men and women, 74-75
  for participants and non-participants 74, 76
  for different age groups, 77-78
  for occupational groups, 77, 79, 80
  by educational background, 81-83
  by income, 81, 84, 85

C

Charters, A., 4
Classification of learning interests and activities, 18-19, 184
Coolican, P., 3
Cost: of adult education activities, 97
  of activities by type of provider, 98
  of activities by course credit status, 99
  adult's preferred course costs, 33-34
  preferred costs and learning interest, 51
  and learning priority, 55
  and reasons for study, 56
Credit: adult preference for, 34
  type of credit, 35
  learning activities for, 97
  and course costs, 99
  special assessment, 106-107

D

Demographic profile of region, 7-8
Development of continuing education programs, 107

E

Educational background: and learning interests, 57-59
Egner, J., 139
Employee training needs, 117, 118
Employer based continuing education, 115-124
Employment in Central Region industries, 25
Enrollment: in continuing education activities, 89-90

F

Faculty in continuing education programs, 108-109
Financial aid programs: of educational institutions, 107
    of employers, 122-124

G

H

Hedlund, D. 139
Higher education: institutions, 14
Houle, C., 4

I

Income: and learning interests, 62, 67
Increase in continuing education activities, 89
Information: methods used by adults, 38
    preferred methods, 39-40
    methods used by providers of services, 92-93
    needs of providers, 94
Interests: general, 27-30
    of participants and non-participants 47-49
    of previous participants, 50,52-53
    and preferred costs, 51, 55
    and educational background, 57-59
    and occupation, 60-62
    of men and women, 62, 65
    of different age groups, 62, 66
    of different income groups, 62, 67
    for rural and urban adults, 63, 64, 68
Interview instrument: design, 8
    needs assessment survey, 148
Inventory of learning opportunities, 13-14

J

Johnstone, J., 3-4

K

L

Lappin, I., 4
Learning Activities: defined, 95
    offered by providers in Spring, 1974, 96
    costs, 97-99
Liverright, A., 4

M

Management system for continuing education information, 135-146
Moses, S., 3

N

Newberry, J., 4
Nolfi, G., 140

O

Objectives: of study, 5-6
Occupation: and learning interests, 60-62
    and barriers to learning, 77,79,80

P

Paisley, M., 5
Posner, G., 139
Proprietary institutions, 108-109

Q

R

Reasons for adults' study, 35
Recommendations: for continuing education system, 130-134
Rivera, R., 3,4
Rural adults: learning interests, 63-64,67
    participation in continuing education, 69
    preferred learning conditions, 70-71
    barriers to learning, 71-72

S

Sample of adults: characteristics, 11
    age composition, 11-12
    educational background, 12
    selection of, 9-10
Sex: differences in learning interests, 62-63
    barriers to learning, 73
Subject areas in continuing education: See classification of learning interests
Survey instruments: Needs assessment, 148
    higher education institutions, 157
    other educational institutions, 167
    community organizations and agencies, 172
    business and industrial firms, 179

T

Tough, A., 3

U

V

Verner, C., 4

W

X, Y, Z